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BUSINESS LAW

FOR

ENGINEERS

BY

C. FRANK ALLEN

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PART I

ELEMENTS OF LAW FOR ENGINEERS

PART II

CONTRACT LETTING

FIRST EDITION

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PREFACE

When a teacher of railroad engineering writes a book on law, some justification ought to be expected from him. The author was admitted to the Bar of New Mexico, and practised law there, serving as local attorney for the A. T. & S. F. R. R. and as City Attorney of Socorro. He was later admitted to practice in Massachusetts. He also spent several years as a civil engineer in water works, sewerage, and railroad construction.

The purpose of this book is not to make "every man his own lawyer," but rather to give the engineer a sufficient understanding of important fundamental features of law, so that he may have some idea of when or how to act himself and when to seek expert advice, as well as to enlarge his horizon and perhaps encourage him to further study of law. Many engineers will find that there is some chapter which covers ground concerning which they are better informed than the author or than most practising lawyers. They will, nevertheless, probably find other chapters with which they are less familiar, and which may prove interesting.

This book can treat any of the subjects of Part I only briefly, and it is hoped that it may be judged by the good it contains rather than criticized for omissions. The entire ground of law cannot be covered in the space available. The preparation has extended over several years, partly in trying to avoid the plight of the business man who once apologized for a long letter; he had not time to write a short one.

Some variation in the style will be noted in passing from Part I to Part II. In the latter, the words Contractor, Engineer, Owner, Company, City, and Board are capitalized, as these parties seem to be more clearly distinguished by this means. The important documents which constitute the subjects treated in Part II, as Advertisement, Proposal, Contract, Bond, Specifications, and Information for Bidders, are also capitalized for a similar reason.

The system of paging is unusual, and was adopted to give flexibility in revision. The nature of the book is such that later revision will certainly be desirable and even necessary. New legislation touching corporations and workmen's compensation acts may be considered certain. The adoption by a large number of States of the Uniform Sales Act, or some substitute for it, would eventually make the re-writing of the chapter on sales

well-nigh imperative. The art or the practice of writing the forms contained in Part II is likely to show changes and advances, and new material will doubtless come into the author's hands, partly as the result of this book. Such changes as seem necessary will probably be made first by additions to chapters rather than by any general revision.

The author desires to express his thanks to many who have furnished him with advice or with forms of contracts and items of information otherwise. He is especially indebted to Mr. Homer Albers, Dean of the Law School of Boston University, who read many of the chapters of Part I, and to Mr. Roscoe E. Learned, of the Boston Bar, who read other portions of the book; also to Mr. Frederick H. Fay, of the consulting engineering firm of Fay, Spofford, and Thorndike; to Mr. James W. Rollins, a civil engineer and contractor, and president of the Holbrook, Cabot, and Rollins Corporation; and to Mr. Charles R. Gow, a civil engineer, and president of the Charles R. Gow Company, contractors, all three of whom have read most of Part II and offered valuable suggestions; also to Professor Charles B. Breed and Professor Carroll W. Doten, both of the Faculty of the Massachusetts Institute of Technology, the former of whom has made useful suggestions covering several of the earlier chapters, while the latter has read substantially all the text. None of the readers, however, has read the text in its final form.

Grateful acknowledgment is made to the American Railway Engineering Association for permission to use contract forms copyrighted by them; also to the American Institute of Architects, for similar permission to use their copyrighted forms.

C. FRANK ALLEN.

September, 1917.

TABLE OF CONTENTS

PART I

ELEMENTS OF LAW FOR ENGINEERS

CHAPTER		PAGES
I.	Introduction	1—1-16
II.	Evidence	2—1-18
III.	Contracts	3—1-16
IV.	Torts	4—1-18
V.	Equity	5—1-16
VI.	Real Property	6—1-22
VII.	Corporations	7—1-29
VIII.	Agency. Master and Servant	8—1-20
IX.	Sales	9—1-17
X.	Negotiable Instruments	10—1-37
XI.	Railroads	11—1-16
XII.	The Engineer's Legal Relations with Others	12—1-13

PART II

CONTRACT LETTING

XIII.	Advertisement	13—1-17
XIV.	Information for Bidders	14—1-18
XV.	Proposal	15—1-15
XVI.	Uniform Contract Form	16—1-80
XVII.	Additional Contract Forms	17—1-45
XVIII.	Bond	18—1-11
XIX.	Specifications	19—1-7

PART I

ELEMENTS OF LAW FOR ENGINEERS

CHAPTER I

INTRODUCTION

Definition of Law. Law has been defined by one of the most noted legal writers as a rule of action. This definition evidently applies to, and includes, the laws of mechanics and many other natural laws. In a restricted sense the law with which attorneys and courts have to do is sometimes called "municipal law," which is defined by the same lawyer as "a rule of civil conduct prescribed by the supreme power in a State, commanding what is right and prohibiting what is wrong." It is with this kind of law that this treatise is to deal.

Purpose of Law. It should be observed and definitely understood at the outset that the purpose of law is to secure right and justice, and as great a measure of liberty for each as is consistent with the rights and proper privileges of others; it relies in part upon usage and custom as to right and wrong. That hardship, or what seems injustice, may at times result from the workings of any system which of necessity has some rigidity, ought not to occasion surprise nor provoke harsh criticism. While justice may seem in some cases to miscarry, nevertheless far greater respect is felt, and properly so, for the judges of the courts and the work of the courts, taken as a whole, than is felt for either the executive or the legislative branches of the government. Much of whatever dissatisfaction exists with the results of court trials is the outcome of the work of the juries, whose functions in court, as will appear later, are entirely removed from determining what the law is, and whose errors result more often from inexperience and the difficulties of the situation than from any conscious bias or wrong intent. The judges, upon whom rests the duty of determining the law, are as a rule qualified by learning, experience, and temperament to perform the duties required of them and are in general well entitled to the respect almost universally accorded them.

COMMON LAW

Common Law and Statute Law. Law is conveniently and properly divided into two kinds: Common Law and Statute Law. Of these, Statute Law, as its name indicates, consists of laws and ordinances passed in set terms by the proper legislative bodies. The Common Law may be properly appreciated if it be stated that it represents the determination of what is right and wrong as found by the judges (or " courts ") to which various cases have been submitted by parties to legal controversies; the decisions of the courts, so far as these are known to us, are found in the printed reports of cases which have been decided by courts of sufficient dignity to warrant perpetuating their decisions, and together they cover so large a field of probable dispute as to form a fairly complete guide as to the rules of conduct prescribed by the Common Law.

Definitions of Common Law. Not only do the decisions of the courts as found in the reports determine for us what is the law in a case referred to it, but, in addition, we find in the reports definitions even of what the Common Law is. This Common Law has come down to us from the mother country, and a Maryland judge thus states of it:

> "The English Common Law is derived from immemorial usage and custom." "It is a system of jurisprudence founded on the principles of justice, and denominated by Blackstone 'the perfection of reason.' The evidences of its existence are the treatises of men learned in the law and the judicial records of the courts of justice of England."

Blackstone's Statement. Blackstone, whose treatise is the oldest and the most fundamental of those generally read, says:

> "These maxims and customs of the Common Law are of higher antiquity than memory or history can reach, and nothing is more difficult to ascertain than the precise beginning and the first spring of an ancient and long-established custom."

So that while we may not trace the progress of the Common Law from its beginning, we may rightly speculate as to some of its earlier workings.

Early Example. At some distant time in the past it doubtless happened that a man carrying a case into court secured a ruling as to what the judge considered right and just, and in harmony with prevailing customs. This man, in his future transactions, carried them on according to the rule thus established; but in this early day when a second case, quite like the first, was tried before another judge, sometimes a contrary ruling was made. It is quite clear that this produced an intolerable condition of affairs; stability of business procedure became an impossibility, and a law-abiding and well-intentioned man could have no fixed rule of conduct

for his guidance. The next step was very simple. After a time, whenever a legal controversy was decided, a record was made of the decision, in writing or in print, and this record became available for presentation when a similar case came up elsewhere. The decision made by one court came to be regarded as of great importance, or even of controlling weight, in determining the decision of the second court or of any future court passing upon substantially the same points in controversy. In this way there was secured the advantage (practically a necessity) of a fixed rule of conduct in business affairs, or affairs of various kinds, and order prevailed instead of something like chaos.

Kent's Statement. Kent's Commentaries on American Law is a book very commonly used as the foundation for the reading of American law students, and Chancellor Kent describes or outlines this process:

"The Common Law includes those principles, usages, and rules of action applicable to the government and security of person and property which do not rest for their authority upon any express and positive declaration of the will of the legislature." "A great proportion of the rules and maxims which constitute the immense code of the Common Law grew into use by gradual adoption and received, from time to time, the sanction of the courts of justice, without any legislative act or interference. It was the application of the dictates of natural justice and of cultivated reason to particular cases."

Rhode Island Opinion. The procedure in determining the law in a new case in court is well described by a Rhode Island judge in a way which enlarges our outlook over the Common Law:

"When a case arises which is not affected by any statute, the facts therein being fully established, the question first to be considered is: Does there exist any clear and well-defined principle of Common Law which directly and immediately controls it, and determines the rights and obligations of the parties? If no such principle is found to exist, the question next presents itself: Is there any principle of the Common Law which, by analogy, should govern it? If both these sources fail in furnishing a determinate solution of the controversy, resort must next be had to the principles of natural justice which form the basis of a portion of the Common Law; and should these principles be discovered to apply in a full and determinate manner to all the circumstances of the case, they are adopted and determine the rights of the parties."

Evidently this decision based upon the "principles of natural justice" becomes in its turn a part of the Common Law from that time on.

Example. Innkeeper. It has come about that a rule of conduct or a principle once established under the Common Law stands good and sometimes holds even after the passing away of some of the conditions which had been instrumental originally in determining the law. For instance, during the period when the highway robber was a constant

menace, a traveler had little chance to protect himself either in traveling or while sleeping at the wayside inn. It was possible for the innkeeper to furnish protection if he desired, or to stand in with robbers if it would profit him to do so. The law therefore did right in holding the innkeeper responsible in case his guest was robbed, and under the Common Law the rule even now holds good, although the conditions are so changed that the necessity hardly exists. As a result, and as a cure, Statute Law has in most States repealed the older Common Law, so that the innkeeper is now responsible for valuables only when deposited in the hotel safe. This provision seems wise and just, for without it there would be today more probability of collusion between some guest and thief, than between the hotel keeper and a robber. A rule of similar origin which remains unchanged, holds that a railroad company, as a common carrier, is fully responsible for the safe transportation of all freight intrusted to its care, with certain unusual exceptions to be noted later.

New York View. The tenacity of the Common Law has been indicated in a case before the Supreme Court of New York, where it was stated:

"While the rules of the Common Law and the result of the application of its principles will vary with the facts to which it is applied or the condition under which such application is made, the fundamental principles of the law remain immutable."

Value of Stability. Possibly it is not stating the case too broadly to suggest that it is more important that a rule or principle which has been once well established should remain fixed, than that it should seem in all cases that the ruling of the court should be free from hardship or sometimes apparent injustice. The Supreme Court of Indiana has gone so far as to say:

"There are some questions in law the final settlement of which is vastly more important than how they are settled."

This is especially true as it affects titles to land. Where a fixed rule may at times seem harsh, a shifting and changeable law must eventually work much greater wrong, injustice, and hardship. It is wiser on the whole that the settled rule should continue unless, or until, a sense of its injustice under changed conditions leads to the proper cure by Statute Law.

Rules Changed for New Conditions. It is not quite true, however, that the courts exercise no discretion or liberty in adapting the principles of the Common Law to new conditions. While slow to change a rule once fixed, it is sometimes found that circumstances and conditions have

changed sufficiently so that, in the opinion of the court, the rule is inapplicable. Sometimes, but very rarely, the highest court of a State will reverse a ruling made by the same court (differently composed probably) at an earlier date. This happens so seldom, however, as not to affect the general proposition.

Pennsylvania Statements. A Pennsylvania court sheds light upon the subject in stating that:

"The Common Law of the United States is composed partly of the Common Law of England, and partly of the usages which have grown up in and are indigenous to the United States. When the ancestors of the people of the United States emigrated from the mother country, they brought with them such principles only as they deemed expedient for the situation in which they were about to place themselves."

A similar view is expressed in two other cases, both of them in Pennsylvania:

"It is the very essence of Common or Customary Law that it consists of those principles and forms which grow out of the customs and the habits of the people. It is therefore involved in its very nature that only so much of the English Law as is adapted to our circumstances and customs, is properly recognized as part of our Common Law."

"Common Law grows out of the general customs of the country, and consists of definitions of these customs and those auxiliary principles that naturally accompany them, or are deduced from them. The Common Law of one country or century is not necessarily the Common Law of another, because customs change."

Common Law in Different States. Following the principle of these Pennsylvania rulings, it happens that, under the different conditions prevailing in various States of the United States, the law in one of these States has come to differ in some particulars from that in another, although in general the main lines of the Common Law will be the same throughout all the States. Louisiana alone of the States is not governed by the Common Law; another system, the Civil Law, acquired from France, which will not be discussed here, has attained a foothold so strong that it still forms the basis of the law for that State. Each State of the Union is a sovereign State, and is thus independent of other States in the operation and control of its internal affairs. Especially is this true of its courts, which determine its laws; and the highest court of any State (generally called the " Supreme Court ") is not controlled or bound by the action of the courts of any other State, nor even by the courts of the United States in any controversies as to matters within the State when the parties to it are citizens of that State. One exception is when there is some conflict with a provision of the Constitution of the United States; in

this case an appeal may be carried to the Supreme Court of the United States. Another apparent exception lies in the fact that the United States courts are available and a proper resort for the trial of cases or controversies between citizens of different States.

Systems of Courts. In each State there are courts of higher jurisdiction and of inferior jurisdiction. In most States the court of highest jurisdiction is called the Supreme Court. The inferior courts are designated differently in different States; in Massachusetts the Superior Court is the second in dignity; there is also a Municipal Court; and, as in most States, there are also the minor courts presided over by justices of the peace. The Supreme Court is made up of a number of judges who together act in determining the law and formulating the "decisions" of this Supreme (or highest) Court; these decisions are recorded and printed, and it is now well settled that they are absolutely binding upon any lower court in the same State. The Supreme Court of a State may (but very rarely does) reverse an earlier decision of the same court, as has already been stated. The inferior court has absolutely no discretion; it is strictly held by the decisions of the Supreme Court of its State. While the decisions in one State are not binding upon the courts of another State, yet even here they are entitled to, and do in fact receive, the greatest consideration, and in a large share of cases will be accepted as conclusive. It is true, however, that the decisions of the courts of some of the States are regarded more highly than those of other States.

Reports of Decisions. In this way have grown up a vast number of printed reports, and from the decisions found in these reports can be extracted, if one be wise and skilful, what the established law is; that is, the "Common Law." It should be understood that the opinion of a judge has force in the Common Law only upon the points specifically in controversy before him. Each case is tried, the two sides are presented by their respective lawyers, and the case is decided in harmony with other decisions to be sure, so far as the cases are parallel, but, so far as new principles are involved, according to what the court believes to be right and just.

Textbooks. Textbooks of law are valuable as compilations of the law as found in law reports; often the text is in reality a series of quotations from reports. So far as the author of a textbook expresses opinions of his own, they are of no binding force upon any court, and are valuable only as these opinions are sound and likely for this reason to favorably impress the mind of the judge.

Sense of Right and Justice. So far does the spirit of right and justice enter into the law that some good lawyers believe that a fine sense of right and wrong is well-nigh the best equipment any lawyer can have. A keen

sense of what is right and what ought to be the law in a special case will often lead to the discovery that this is in fact the law.

It cannot be too strongly emphasized that the fundamental basis of the Common Law is right and justice; with this is a recognition of the fact that in many cases business custom determines what it is right to do, and that certainty and stability as to right action are essential if correct relations and conduct are to be secured.

Value of Stability for Engineers. Following the principle underlying the Common Law that stability is a prime necessity, it would add much to the dignity and the respect accorded to the profession of engineering, to the engineer and surveyor, if greater stability was secured from their work. A boundary line once reasonably fixed by one surveyor should be held to by another surveyor unless definitely found to be in error. In other directions, unnecessary disagreements should be avoided, and, so far as reasonable, engineering should be recognized as fixed and definite in its principles. The entire profession of engineering suffers when the work of a reputable engineer is unnecessarily attacked or held up to contempt.

STATUTE LAW

Statute Law to Meet Changed Conditions. As has been suggested previously, it will be found sometimes that what seemed right and just a hundred years ago may cease to be right and just now; this is one reason for the passing of laws or statutes. Statute Law serves various purposes; it sometimes changes the older Common Law; it sometimes provides for different penalties, or different legal procedure. In any case it does away with previous law inconsistent with it. A later statute as a rule repeals all earlier conflicting laws whether Statute or Common Law.

Definition. Statute Law consists of acts or statutes passed in set terms by the proper legislative bodies. It may be divided into three classes; declaratory, remedial, and penal. Sometimes the statute is passed for the purpose of clearing a doubt which may exist in the Common Law, and in this case it is called " declaratory "; when the statute is passed to remedy what seems to have become a defect, or an injustice, in the " Common Law," or to improve the procedure, it is " remedial," and a statute which provides for the imposition of a penalty is called a " penal " statute.

Example. Interstate Commerce Act. The original Interstate Commerce Act of 1887 is partly declaratory, as where, in Sections 2 and 3, it declares it unlawful (which was already the case) for any common carrier to charge or receive from one person more or less than from another for the same service, or to give undue preference to one over another; it is

partly remedial, where in Section 11, a commission is created; also where in Section 15, provision is made for a hearing rather than a suit, and an opportunity is given for the carrier to make reparation for a wrong found to be done, thus providing a new and simple remedy; and it is partly penal, as in Section 10, which provides that for infractions of this act by discrimination in rates there may be imposed a fine or sentence of imprisonment. So far as some of the declaratory clauses lead to penalties in later sections, the whole effect becomes penal rather than otherwise, but there are remedial clauses independent of penal clauses, so that this act, or law, or statute, may fairly be considered to combine all three classes; declaratory, remedial, and penal.

Constitutional Questions. It has already been stated that a statute sets aside or "repeals" the earlier Common Law so far as the latter is antagonistic to the former. It should further be understood that although the state or national government has three different sides, executive, legislative, and judicial, it may, and sometimes does, happen that the legislative branch passes and the executive approves some act which is illegal, being contrary to that part of the law of the land which is supreme and enduring, the Constitution of the State, or of the United States. The foremost question as to the provisions of any written law will usually be with every legal mind, "Does it interfere with any constitutional provision, State or federal?" In case it does, the courts declare such a statute unconstitutional. An act which seems unfair, senseless, unwise, will not be set aside for that reason; to be void it must contravene some constitutional right of an individual, community, or State.

Examples. As an instance of constitutional law affecting statutes, the Constitution of the United States provides that no State shall pass any law impairing the obligation of contracts; State constitutions commonly provide that private property shall not be taken, even for a public use, without just compensation and without due process of law. These rules or principles are meritorious rather than technical and are desirable for every one to keep in mind. An engineer's judgment on either of these propositions will often be keen and correct, and justify him in consulting competent legal authority (insistently, if necessary) for an opinion on this point. The engineer finds it necessary to secure by right of eminent domain, land for a city street, for a reservoir, for a public water supply, for right of way of a railroad; the statute which provides for so taking land makes provision for determining the compensation to be paid, and arranges for a convenient and also constitutional legal process.

Master and Servant. The "Employers' Liability Act" or statute is not without interest to engineers in connection with the discussion in this chapter, although it will be treated more fully later. Under the

Common Law of "master and servant," the master is responsible for the acts of his servant, or employee, performed (or neglected) in the line of his duties. This rule is of long standing.

Fellow Servants. Between 1830 and 1840 conditions existed which led to the establishment from that time forward of a new rule affecting many cases, the law of "fellow servants." Under this rule of the Common Law, one employee could not recover from his employer for injuries received through the carelessness or neglect of a fellow-servant or co-employee in those cases where an outsider clearly could secure compensation if injured.

Law Stated. One of the decisions under the Common Law reads as follows:

> "When a master uses due diligence in the selection of competent and trusted servants, and furnishes them with suitable means to perform the service in which he employs them, he is not answerable when there is no countervailing statute, to one of them for an injury received by him in consequence of the carelessness of another, while both are engaged in the same service." "The ordinary risks of the employment" "are taken into consideration" "in agreeing to the terms of the contract," "including the negligence of competent fellow-servants."

The employer was responsible for discoverable defects of machinery or apparatus or plant, but not for neglect of a co-employee if proper care was exercised to provide competent and suitable workmen.

It became difficult sometimes to determine whether an accident was chargeable to a co-employee or to the employer, perhaps where a piece of apparatus was slightly defective and was carelessly used by a co-employee. After a time the courts had also come to show some disposition to hold corporations responsible where an accident was caused by the negligent or improper act of an officer high in authority in the corporation, in one case by an employee no higher than the conductor of a railroad train.

Employers' Liability Act. Finally in 1880, in England, a statute was passed known as the "Employers' Liability Act." Afterwards in 1885, 1887, and at other times later, in several of the United States, similar statutes were passed. These somewhat enlarged the responsibility of the employer, specifically holding that the acts of the superintendent should not have the effect of those of a co-employee; while in the case of a railroad the Massachusetts act provides that, when the injury results from "the negligence of a person in the service of the employer who was in charge or control of a signal, switch, locomotive engine or train upon a railroad," and the injured employee did not contribute to the negligence, he shall have the same rights as if he had not been in the employ of the employer; and this has been liberally construed in favor of employees. The Massachusetts act is substantially a copy of the English

act; in Indiana and Alabama acts somewhat similar have been passed. These acts although in part apparently declaratory are largely remedial, and their constitutionality seems to be established.

Federal Act. The Congress of the United States passed a similar act applying to employees of railroads engaged in interstate commerce. The constitutionality of this United States statute was called in question on the ground that the employment of an employee within a State is not a matter of interstate commerce and therefore not within the province of United States action, but purely a State matter. The United States Supreme Court in 1908 decided the act to be unconstitutional, on the ground that when the employee is not engaged in interstate work (although the railroad may be) the United States has no authority. A later act, passed in 1908, was intended to cure the defect, and apparently has done so.

Illustration. There is illustrated here the older rule of the "master and servant," modified later purely through the action of the Common Law under the rule of "fellow servants," modified again (constitutionally) by statute by the "Employers' Liability Act," while the earlier attempted extension by United States legislation illustrates an interesting case of a statute set aside because unconstitutional.

Construction of Laws. When a statute has been passed it becomes necessary to determine what it means (as a law); and the law states clearly that it means what it says; it is not always, however, entirely easy to determine what it does mean or does say, and for this reason certain rules have been laid down by the courts in order to aid in determining the meaning. This determination of meaning is technically called the "construction" of the statute (or of a contract or of any document). Before entering critically into this matter it may prove helpful to briefly consider the character of a suit at law.

LAWSUIT AND COURT TRIAL

Method of Bringing Suit. When a condition of affairs exists which seems to justify a lawsuit, the first step is to secure from the proper court certain papers so that the necessary notice may be served upon the person sued, who is called the defendant. The person who brings the suit is called the plaintiff; he has a complaint against the defendant. The technical features of these papers and of serving them are matters for the lawyer, and not for the engineer or any layman. It is well for the engineer to understand, however, that the correct name of the defendant should be known, both the surname, or family name, and the given, or Christian name; these should be stated in full to secure certainty as to

the party sued. The middle name is less important and is generally not specified in full, but by initial only. Using the first initial and the middle name in full is not considered good practice in formal legal matters. Complete identification is the essential point, however. For all legal purposes the full Christian name should be given, whatever may be the ordinary signature of a person or popular way of using the name. It is worth while to suggest also that in any suit where the court is called upon to deprive the owner of control of property, as in attachment or replevin, a bond is required in many States, sometimes for twice the amount of the property involved. Statutes have been passed in some States doing away with the requirement of a bond in attachment. Where a bond is necessary, parties who can give bonds in satisfactory amount should therefore be secured before going to the lawyer, especially in cases where the party bringing the suit lives at a distance from his lawyer.

Proceeding *In Personam* and *In Rem*. When the action is against some person who is summoned into court, it is often referred to as a proceeding "*in personam*"; and the remedy contemplated is a financial award in cases at Common Law. When the action, however, looks to a piece of property which is either to be returned, or else acquired as security for a debt and sold to satisfy it, the proceeding is "*in rem*."

***In Personam*.** In actions "*in personam*," the preliminary paper, the summons, must be served upon the defendant personally, or perhaps by leaving it at his residence, or possibly in some other way authorized by statute. The service must be within the State and within the jurisdiction of the court. Until such personal service of the summons is made, the court has not acquired jurisdiction of the case. A non-resident cannot be served unless, unwittingly, he enters the State.

***In Rem*.** In a proceeding "*in rem*," personal service is not required. A man must look after property which he owns, so that notice may be given by tacking the summons on a piece of real estate, or seizing goods by attachment, together with such other notice, like advertising, as the statutes may require. While the court in the latter case obtains jurisdiction of the case, provided the property be within the jurisdiction of the court, even then its jurisdiction will not support a judgment for money against the defendant personally if the property reached is insufficient; the jurisdiction is confined to the property reached by the service.

Appearance. If a person upon whom notice has not been served allows his lawyer to appear generally for him in court, this act is held to acknowledge service, and the court then has jurisdiction.

Pleadings. The next thing is to specify distinctly or declare what complaint is made, and this is the work of the lawyer in the "declaration." A reply to this is made by the lawyer for the defendant, and by a series

of such "pleadings," as the term is, the real questions at issue between the parties are reduced to their lowest terms, so that the evidence submitted may be closely directed to the essential points; unless so directed it will not be accepted.

Examples. For instance, A sues B for money loaned. B says A loaned him no money.

In another case C sues D for money loaned. D says that it is true he borrowed, but that he has paid C and now owes him nothing.

In another case E sues F for $100, the value of furniture sold F. F rejoins that E owes him $105 for groceries sold E.

Again G sues H for 10 barrels of cement sold him. H claims failure of consideration because the cement was of poor quality and useless.

Pleadings by Lawyer. All pleadings are formal papers requiring the skill of the lawyer. The engineer is likely to have clearly in mind the evidence available in any suit in which he is interested, and this evidence will be the foundation for the pleadings. The collection of evidence is so important and the engineer is so often in position to gather evidence, that the next chapter will deal with "evidence," a branch or subject of the law very important to the engineer.

Questions of Law for Judge. When the case comes to trial before judge and jury, if all the evidence is harmonious, as is sometimes the case, the judge, or as more commonly expressed, the "court," decides what is the law applying to this undisputed state of facts; there is nothing left for the jury unless to bring in the verdict which the court directs them to find. Similarly, if all the facts presented by the plaintiff, even if true, would not in point of law make the defendant liable in this case, the court will properly instruct the jury to bring in a verdict for the defendant.

Questions of Fact for Jury. When, however, the evidence presented is inharmonious, and it becomes necessary that there shall be some means of determining what part of the evidence is to be accepted as true, and what part rejected as false, then the settlement of this matter is for the jury, who are the sole judges of the facts; for example, the credibility of witnesses, or what was the position of a signal which was an element of a railroad accident, or the condition of a sidewalk where some one fell and was injured. The judge is not allowed, however good his judgment, to pass upon those facts which are in dispute; this is for the jury alone. On the other hand it is not allowable for the jury to determine what is the law in the case; the jury is not skilled in the law and is incompetent to do this. The judge instructs the jury what the law is, that is, so much as is applicable to the case and is necessary to enable them to reach a proper verdict, which must rest upon their findings as to the facts combined with the judge's instruction to them as to the law.

Appeal from Judge's Decision. What happens if the judge does (improperly, unlawfully) express an opinion upon a matter of fact, a function exclusively belonging to the jury? If the case be appealed to a higher court (as from the Superior Court to the Supreme Court), a new trial will probably be ordered as the result. Supposing the judge of the lower court is free from interference with the jury's duties but commits another error (through misapprehension) and declares that to be the law (applying to the case) which is in reality not the law; again an appeal to the higher court will result in setting aside the verdict and ordering a new trial or directing a different verdict, dependent upon the circumstances in each case.

Setting Aside Verdict of Jury. In case the jury makes the mistake of substituting its own ideas of justice instead of following the instructions of the court as to what the law is, the situation is of greater difficulty, since the action of the jury is secret and its methods of reaching a result are not evident; apparently to meet this emergency the law permits the judge to set aside any verdict of the jury which he regards as " contrary to the law and the evidence," and even here a refusal to set aside the verdict may be overruled on appeal to the higher court, if this decides that he should have set it aside. If improperly set aside in the lower court, again there is a chance for reversal of decision. The judge in the trial of a case needs to keep his head clear, and to possess an intimate knowledge of the law, so as to avoid rendering any incorrect decision as to any question of law involved in the suit.

Mixed Questions of Law and Fact. While the duties of judge and jury may be stated simply enough, nevertheless the line of cleavage becomes in some cases hard to determine. For instance, when there existed a defect in a sidewalk where an accident occurred, if there was no conflicting testimony as to the condition of the sidewalk, the judge might properly decide, as a matter of law, whether the city (or the owner) was negligent. If, however, there was some conflicting evidence as to the condition, then the jury must determine what that condition was, and in connection with this must find whether the city (or the owner) was negligent. There is a mixed question of law and fact, and the jury settles this.

Trial Without Jury. The lawyer of the client who sues the city, or railroad, or manufacturing corporation, will generally present evidence of a character which raises questions of fact and so requires that the jury shall decide whether or not the corporation was negligent. Sometimes by arrangement between parties, the jury is dispensed with for some particular suit, and it is agreed that the judge shall decide in that suit all the questions, both of law and fact. This is a wise proceeding in those cases (not rare) where both parties to the suit desire what is right, but have

an honest difference of opinion on it and desire the decision of some one skilled in sifting evidence, as well as competent to unravel a complicated set of accounts or a mass of technical evidence.

INTERPRETATION OR CONSTRUCTION OF STATUTES

Definition. In the use of language, uncertainty and ambiguity are sure to occur. Feebleness or imperfection of language lends itself to various interpretations put upon it by ambitious fraud and also by honest difference of opinion. To settle such difference some tribunal is necessary, and the determination of the meaning, the "interpretation" or "construction" of a statute is a matter for the judge, and is quite outside the functions of the jury; nor can the legislature interpret it, although it may by a new enactment change the law.

Controlled by Common Law. Rules of interpretation are derived from the Common Law, and since that law constitutes the foundation and primarily the body and soul of our jurisprudence, every statutory enactment is construed by its light and with reference to its cognate principles. "Interpretation" and "construction" signify the ascertainment of the meaning and intent of the author, and this intent is that expressed in the instrument itself; the intent is what the writer actually expressed, and not what he may have intended or did intend to say; when this statement is clear and unambiguous, nothing further is needed or is considered in law.

Construe as a Whole. It is necessary to look into the writing as a whole, and it is a rule of law that every part (even every word) shall be given effect if possible, and that is the correct construction which does harmonize all the parts. In general a meaning will not be given or supplied if the maker in a simple way could, and naturally would, have expressed that meaning, but failed to do so. Where two constructions are possible, one valid and the other invalid, that one will be adopted which is valid. Similarly a construction is adopted which shows a legal purpose rather than an illegal; effective and useful, rather than frivolous; reasonable and just, rather than the contrary; nevertheless the clear language and intent prevails, and an argument as to reasonableness and justice will not prevail against a reading showing clear intent. Neither does bad grammar, nor wrong spelling, spoil what is clear in intent.

Intent. When a construction harmonious throughout cannot be secured, the intent is still the thing sought, and where words are written into a printed instrument or form, the written words are held to, as more surely having been in the minds of the maker of the instrument. The circumstances attending the making of the writing, the purpose in having

the paper written, are proper subjects for inquiry when nothing more certain is available. In the case of contracts, anything which may show in what way the writing had previously been interpreted by the parties to it will have definite weight. While punctuation is said not to control, yet if the clear meaning can be better found by the help of punctuation, and not without it, then the punctuation is important, or even controlling. Clerical errors may be corrected, words added where clearly intended, or words left out in a similar way, but only when adding, omitting, or correcting leads to maintaining the clear intent. Sometimes meaningless words will be rejected as surplusage; but in general a strong effort will be made to give effect to every word.

Ordinarily words will be used in their general and popular sense rather than in any technical sense; but in a statute, or more especially in a contract covering special trade or technical operations, the technical rather than the popular sense will often be clearly intended. Where there is an irreconcilable conflict in parts of a statute the last is of greater weight and will control. Where an inferior court, or the officers even, have for a long time acted upon a certain construction of a statute, a higher court will hesitate about setting aside this accepted view and will tend to stand by the Common Law principle of holding to usage and custom. A statute expressed in such form that no useful construction can be put upon it is in effect void.

Strict or Liberal Construction. Whether statutes shall be interpreted "strictly" or "liberally" is sometimes of considerable importance; but it is unsafe to attempt in this short treatise to lay down any rules, since these oftentimes have sufficient variation locally to require a somewhat careful study of authorities. In general, statutes in derogation of Common Law, of the common rights of individuals, are to be strictly construed; for instance, the statute providing for mechanics' liens, it is generally held, should be construed strictly, and no more power assumed than the strict reading allows.

Repeal of Previous Statutes. The rule has been stated that a later enactment serves to repeal not only the Common Law previously in force but also probably repeals any previous statutes or parts of statutes which are inconsistent. It is best, however, for the repealing act to state that "all previous inconsistent acts are hereby repealed." The courts do not favor repeal by implication, and an act well drawn will leave no uncertainty on this score.

Certain Special Words. It will be found that, in the case of certain words, court decisions have determined the meaning under the Common Law. For instance, the words "and" and "or" are very commonly construed as equivalent, although not always. Again, "shall" is some-

times construed "may," and "may" sometimes construed "shall"; the distinction as to these is often of great difficulty and the true intent is not easily determined by the layman, not always even by the experienced lawyer; but it will sometimes depend only on the decision of the court, which in a close case is sometimes jocularly said to "have the last guess" at the meaning.

Importance of Clear Expression. It would be quite improper to leave the question of the interpretation of writings without making the suggestion that the engineer who has to do either with the production or interpretation of writings can have no better preparation than a thorough training in the clear expression of English and a critical analysis of its meaning. The school training must be supplemented by systematic individual work in this direction.

CHAPTER II

EVIDENCE

Definition. Evidence, in a legal view, is the means by which any alleged fact is established or disproved. There are two important sides or features of evidence; first, its "competency"; second, its "weight." Competent evidence is that which is appropriate in its nature as a means of proof. Satisfactory or sufficient evidence is that amount or "weight" of evidence which is adapted to convince a reasonable mind.

Duties of Judge and Jury. It is for the judge to decide whether evidence offered is competent or admissible; the jury decides as to the "weight" or sufficiency of evidence presented which bears upon the point at issue; that is, what credit shall be given to it. The jury has no opportunity to decide whether evidence offered shall be admitted; the judge settles this, and often sends a jury out while the attorneys argue whether certain evidence ought to be admitted or not.

Erroneous Rulings. If the judge rules improperly, in view of precedents forming the Common Law, or in view of special statutes, this constitutes an error on his part, and if the ruling be on a point material to the decision of the case, it probably will result in a new trial being ordered if the case is appealed to a higher court, just as is done in any other case of misinterpreting the law. The judge may, and occasionally does, exceed his functions by passing judgment upon the "weight" to be given to certain evidence presented; this again is error on his part. The jury is, in the first instance, the sole judge of the "weight" of evidence, the credit to be given it; but after the verdict of the jury is rendered, the judge may, and occasionally does, set the verdict aside because, in his opinion, it was clearly against the weight of evidence.

When, however, the judge directs a verdict either because the evidence is harmonious, or because, even if true it makes no case in law; in neither of these cases does he pass on the weight of evidence, but only upon its legal effect, and this lies within his proper functions.

Standards of Evidence. It is said that mathematical truth alone is susceptible of actual demonstration beyond possibility of error. Demonstration beyond reasonable doubt is the utmost that can be demanded or

expected in ordinary human affairs. In criminal trials this high standard is called for; evidence conclusive beyond a reasonable doubt is required before a man accused can be convicted. In civil cases a less rigid standard secures more satisfactory results; here proof by preponderance of evidence only is necessary, quality as well as quantity being elements in the preponderance.

Engineer may Secure Evidence. The engineer has to deal with the performance of contracts, and is often directly in contact with what is done in connection with them. Cases of negligence or of trespass are also frequently within the knowledge of the engineer. He is often early on the scene of an accident. In one way or another, therefore, the engineer is on hand and in position to secure facts, evidence then obtainable but soon lost through changed conditions, so that it is of great importance that he should have some knowledge of the qualities of evidence both with a view to its competency which permits its introduction, and also with a view to its importance, in getting together enough facts of a valuable and convincing sort, so that the interests of his employer shall be adequately protected. Many cases in court have been lost because of insufficient evidence to establish actual facts favorable to one party, for the reason that nobody at hand had knowledge of what evidence was competent and valuable, and of how and by whom it could be presented in court.

Quality of Evidence. Evidence, and particularly the evidence of witnesses, is measured, the weight to be given it is determined, first by our general knowledge and belief, to which evidence commends itself as being reasonable; second, by our faith in human testimony, as a matter of experience; third, by the influence or effect of other collateral facts presented which bear upon a point in controversy. The value of the evidence of any witness thus depends on:

1. His opportunity of observing the matter he relates.
2. His powers, natural and acquired, of perception and observation; including his temperamental qualities.
3. Whether the facts in question were sufficiently within his experience and training to have secured careful observation.
4. His memory, taking into account lapse of time and opportunity for refreshing memory.
5. His reputation as to honesty or his apparent honesty.

These are matters which directly appeal to juries.

Classes of Testimony. But the courts, the judges, through the experience of years, have found that certain classes of testimony are definitely unreliable and should not be considered, and so should not be admitted in evidence; that certain other classes are comparatively unsatisfactory and should be admitted only when more reliable testimony

has become unavailable. In such ways the law relating to the admissibility of evidence has become established.

Irrelevant or Immaterial. When the real issues in a case have been defined by the pleading, evidence is rejected if it be irrelevant or if it be immaterial. In either case it not only adds to the mass of evidence (which is undesirable) but it further opens an opportunity for the jury to acquire a prejudice or to draw conclusions from this testimony which from the law point of view are all wrong, so that such evidence is detrimental to justice and properly shut out.

Sometimes evidence is temporarily rejected as irrelevant, and afterwards admitted when a foundation is laid by other evidence which shows it to have a proper bearing on the case. The skill of the lawyer is of importance here, and the engineer may often aid the lawyer in a preliminary conference, for the reason that in technical matters the bearing of facts may be clearer to him than to the lawyer.

Another requisite is that the evidence offered shall be the "best evidence" available; further attention will be devoted to this point later.

Direct, Indirect, Circumstantial. Evidence may be divided into three main classes; direct, indirect or circumstantial evidence, and real evidence. Each of these requires, in general, oral testimony for its introduction.

Judicial Notice. There is, however, one class of evidence which requires only presentation by the attorney to secure its acceptance by the court; that is, evidence of which the court will take "judicial notice."

This procedure of taking judicial notice, like that of having the pleadings lead to as simple a point, or points of controversy as possible, is clearly adopted to promote simplicity of action in court and facilitate generally the conduct of the trial. There are many matters of law which it is within the province or the duty of the court to know, and which should, and do, require no proof. The court must know the Common Law, the Constitution of the State and of the United States, statutes, treaties, law of nations, municipal charters and ordinances, the courts and the court practice within its own State. While the court does not take judicial notice of the statutes or the Common Law of other States, it accepts without question the fact that the printed reports of another State do define the law as applied in that State. Most of the above matters the court is under obligation to take judicial notice of. In many cases the court may exercise discretion, but this will generally be exercised under the Common Law principle of following precedent when the cases are substantially identical or very similar.

Examples. The court will thus judicially notice well-known geographical facts, the general location of cities or counties, but perhaps not

the precise boundaries of towns, certainly not of private property; for this, evidence must be submitted. It will judicially notice distances or the position of location of a long-established railroad; the facts of the almanac, including the time of sunrise or moonrise, the time of the tides; tables of logarithms, astronomical computations; and there would appear to be no reason why other tables such as those for earthwork computation, or for railroad curves, should not be treated similarly.

As a further example, it has been judicially noticed in one court or another that the Mississippi River at New Orleans is a tidal river; that the Connecticut above the Holyoke dam is not a public highway for commerce with other States or countries. The court takes notice of the common properties of matter and well-established facts of science, probably of much more now than forty or fifty years ago when school instruction failed to cover such matters; that photography, for instance, is a well-established process for obtaining correct representations of objects or scenes, so that this need not be shown (but definite evidence must be presented that a particular photograph is a correct representation of the things shown by it). There are many matters of common knowledge among intelligent people which need not be proved by evidence. The judge may, in matters of knowledge readily ascertainable, refer for his own enlightenment or refreshment of knowledge, to a cyclopedia or any book or source of information he pleases, to aid him.

Discretion of Judge. These matters are legal technicalities and the determination as to their introduction lies in the discretion of the court; the lawyer's advice is both available and necessary as to the matter and the manner in presenting this and all other evidence at a trial; nevertheless it is extremely desirable that the engineer should have some working knowledge or appreciation whether such evidence is undisputed; it is often of importance; the opportunity to acquire all necessary evidence may occur before he has had opportunity for preliminary consultation with his lawyer.

Statutes. In some States there are special statutes governing such testimony; in Iowa, for instance, books of science and charts made by unprejudiced parties are allowable in evidence to make a *prima facie* case; yet the court here has held that an extract from a treatise on brakes was not admissible to show the distance in which a train would stop when it did not give the size of train, pressure of brakes, nor the grade; and in Iowa, the Railway Age has been held not to be a book such as is admissible in this way.

Instruments of Evidence. The instruments of evidence are; witnesses, real evidence, documents. Of these, documents are generally the most definite, and for that reason very satisfactory. They include

writings, printed matter, pictures, maps, diagrams. The method of introducing these will be taken up later.

Real Evidence. Real testimony is that directly brought to the sight or to the senses of the court or jury, who are thus enabled, by inspection and without the testimony of others, except to identify it, to appreciate and understand this evidence. A coroner's jury has real evidence of death in the corpse; in murder or assault the pistol or ax used is often put in evidence. Persons injured and brought into the courtroom constitute another example of real evidence. In case of an accident in a machine shop, a chain, a hook, a broken iron ring, the cause of the accident, are in the courtroom as real evidence, partly to make the testimony and descriptions more intelligible, partly so that the fracture of the ring, and the ring itself, may be inspected by the jury.

View. It is not uncommon for a jury to " view " a piece of real estate in controversy, or the scene of an accident; when the roof of a railroad car was blown off and killed a man, the jury " viewed " the roof, which had been brought into a warehouse for safe keeping. A view is usually granted when the jury cannot acquire a clear or proper understanding of the premises, or the object, from the evidence alone. Whether a view shall be had lies in the discretion of the judge.

These are examples of real evidence.

Witnesses. Although the evidence of witnesses has elements of weakness, it is nevertheless the most important of all; not only does it constitute a large part of that presented in the greater share of cases, but it is further true that either documentary or real evidence usually requires some basis of oral testimony as a preliminary to its introduction.

It should be understood that a witness duly summoned into court must appear and give testimony to any facts of the case within his knowledge, under penalty of fine or imprisonment for failing to appear, or for refusing to answer the questions asked him (with some special exceptions). Among these exceptions a witness may at any time refuse to answer a question on the ground, if true, that his answer would tend to incriminate himself. Clearly this is an undesirable position for a witness to be forced into. A witness duly summoned is also liable to a suit for damages for failing to appear.

Direct and Indirect Evidence. Direct evidence is that of a witness to acts which he saw or heard or which impressed themselves upon his senses, or to facts which in a similar way are within his knowledge, when these acts or facts are those definitely and directly in issue.

Indirect evidence on the contrary is similar evidence of a witness to collateral facts or acts which bear upon the point at issue and, together with other testimony, go to make up a state of facts from which the fact

in issue may legitimately be inferred or deduced. A series of circumstances is interwoven in such fashion as to be inconsistent with any other state of fact than the one sought to be established, and so become convincing although no direct testimony is available; the term "circumstantial evidence" is probably a more common and a better known term than "indirect evidence."

Comparative Value. As to the comparative value of the two kinds of evidence, direct and circumstantial, there seems to be some divergence of opinion. Direct testimony is probably held in not quite as high regard by judges and attorneys as it is by the jury or by people generally. It is a well-known fact that the stories of direct witnesses will differ in detail, sometimes widely, even in cases where there is no suspicion of fraud or dishonesty. Few people are accurate observers, and memory plays strange tricks, so that there is always opportunity for error even where fraud and prejudice are absent.

The direct witnesses are, in the nature of things, few in number in most cases, and the opportunity for false and fraudulent testimony is especially good, since a very simple story commonly suffices. Circumstantial evidence, on the contrary, to be effective, must have its parts fit in so as to make a well-built and coördinated case; it often requires a number of witnesses who must testify to facts which together form a more complex case, and these witnesses must hold their own, often under a searching cross-examination. That circumstantial evidence should often be more conclusive than direct, seems altogether logical. Nevertheless, the human mind acts in such a way that the average juror probably tends to give greater weight to direct evidence; an index of that is found in the fact that men are plenty who will refuse to convict on circumstantial evidence in a murder case where conviction leads to capital punishment.

BEST EVIDENCE

Best Evidence Rule. Whether the evidence be direct or indirect, it must be the best evidence. The "best evidence" rule is probably the widest known of the rules of evidence and is well accepted, although not literally followed in all cases. The rule is that the evidence presented shall be the best that the nature of the case will admit; and no evidence is admissible which shows the existence of better evidence unless the absence of this better evidence is properly accounted for. Under this rule the best evidence of the terms of a deed for land is the writing or deed itself. The best evidence of what a contract covers is the contract in writing (if there is one in writing). Oral testimony of its terms is inferior and inadmissible, so long as the written contract is in existence and

available. The best evidence of a letter is the letter itself. An impression copy from a copying book, or a carbon copy, is not received if the original is available. Oral testimony is necessary, however, to present, to identify a writing.

Secondary Evidence. Secondary evidence, such as a copy, is allowable only when the original is not available, as when the original is in the hands of the adverse party who does not produce it after proper notice; or when in the hands of a stranger who cannot be compelled to produce it; or when destroyed or lost; or when not readily movable; or when a public document; or when originals are numerous documents not conveniently examined.

When one party has in his possession the best evidence and fails to produce it when duly requested, the other party to the suit may present secondary evidence, and there are no degrees recognized in this case as to the secondary evidence. While a written copy of a contract or letter may exist and may seem better, nevertheless oral testimony is admissible as to the contents of the letter. The written copy will doubtless be more convincing to a jury, more effective in weight; the oral testimony is equally competent and will be accepted by the judge as evidence, the jury to determine its weight.

Inadmissible to Contradict Writing. The rule is general that, in the case of a written contract which is not ambiguous, it is inadmissible to vary, contradict, or modify it by oral, or "parole," evidence of anything which occurred at or before the time it was executed. This has been the law in England since 1771.

In case of apparent ambiguity, the court will construe it if possible and find its correct and harmonious meaning, and may allow some oral testimony as to the technical meaning of words or terms if that will assist. In the building trades there are technical practices, such as allowances for openings for doors and windows in computing the payment for brickwork or masonry, and if not covered clearly by contract, oral testimony may be allowable to establish what is the custom. Similarly, oral testimony might be admissible to determine whether or not the prismoidal method should be used in earthwork computation.

Writing is Best Evidence. As has been stated, in proving the contents of a contract or other writing, the best evidence is the writing itself and this must be produced. Where any documentary evidence is not within the control of a party to a suit who desires its introduction, a reasonable notice to produce it should be served upon the other party to the suit (if in his control); or if in the hands of some third party, a *subpœna duces tecum* should be served, a summons to attend the trial and bring the desired documents. A failure of the attempt to obtain

them in this way (faithfully made) allows the introduction of secondary evidence, such as the copy-book page, or the carbon copy of a letter, or sometimes as a last resort even oral testimony as to the contents of the document. Before the secondary evidence will be allowed, however, the document must be proved to be in the hands of the other party or hopelessly lost, or to be beyond the jurisdiction of the court.

Oral Explanations. Occasionally the only writing used in connection with making a contract is a receipt, and while this may properly be supplemented by oral evidence as to what the contract was, it is sometimes difficult to determine whether such a writing is a simple receipt or is the expression in writing of a completed contract. Sometimes part only of a contract is reduced to writing; perhaps there are several papers, and some of these require to be supplemented by oral testimony to explain their connection. An offer may be made in writing and accepted orally, or *vice versa*. Sometimes oral evidence is introduced to set up a counter-claim.

Additional Oral Contract. Again there may be a written contract, and an oral contract upon another matter or upon a matter which possibly does connect with or infringe upon the scope of the written contract. Sometimes there is a question practically of implied warranty. In a case where a certain machine was contracted for in writing, and the purchaser was sued for payment, the purchaser offered parole evidence that there was a definite understanding and agreement (aside from the writing) that the machine "would do the work satisfactorily"; the court held that if the agreement had been for machines to do this work therein specifically described, there would have been an implied warranty, and from a similar point of view allowed the oral testimony to be offered.

Oral Proof of Illegality. Oral evidence may be presented to show that a contract signed was obtained fraudulently or under compulsion. Fraud, intimidation, illegality, want of due execution, want of capacity in contracting party, want or failure of consideration, mistake of fact; anything affecting the validity of a contract may be put in evidence under what is called the "parole" rule. It may always be shown by oral testimony that the transaction was not intended to have legal effect, or that while signed the contract or deed was never delivered.

Complete Writing Conclusive. But when a legal act is reduced into a single memorial in writing, all other utterances are immaterial. It is well established that you cannot disturb a clear meaning expressed in a writing. But if agreements are made subsequent to the written contract, oral evidence of these is clearly admissible; they are essentially new contracts. The careful engineer, however, should see to it that his contract is in definite and complete shape in writing, and further that there are no oral transactions of a sort to modify the contract, or

such as to be admissible in evidence to supplement, or in any way alter, the effect of the contract.

All doubtful questions involved in the proposition that the writing stands, are eventually for the lawyer, and the engineer should not expect to do otherwise than consult his lawyer when a fair question arises in his mind as to the admissibility of any evidence available.

Engineer's Relation to Secondary Evidence. The admission of secondary evidence, apparently contrary to the " best evidence " rule, is rather technical; nevertheless, there is a principle involved which the engineer can profitably take to heart; at the trial his lawyer will attend to the technicalities. Any evidence of apparently good quality which the engineer can secure should be ready for presentation, and he should always secure the best evidence he can find so far as his knowledge, experience, and skill allow. He may profitably act upon the principle stated by a very able law writer that all facts having probative value are admissible unless some specific rule forbids. Nevertheless it is worth while for him to have some knowledge of the rules which restrict the admission of evidence.

Best Evidence not Personal Quality. It should be understood that the standing or character of the man giving evidence has no bearing so far as the question of " best evidence " is involved. Whether evidence shall be admitted depends on the quality of the evidence and not on the character of the man. One man's evidence is as good as another's so far as its competency or admissibility is concerned. Before the jury, however, the situation is different and the weight given to any man's testimony may be much influenced by his standing in the community, by the clearness and apparent integrity of his answers, or by his demeanor while testifying.

HEARSAY

Definition. Oral evidence must be direct to satisfy the rule as to the best evidence. If it refers to a fact alleged to have been seen, it must be the evidence of a witness who says he saw it. If it refers to a fact alleged to have been heard, it must be evidence of a witness who says he heard it. If it refers to a fact alleged to have been perceived by any other sense or in any other manner, it must be the evidence of a witness who says he perceived it by that sense or in that manner. The judge will not allow Jones to testify as to what Smith said; that is " hearsay " and hearsay evidence is ruled out. Let Smith, the first man, come himself and tell what he saw or knew to be the fact; that is the best evidence. Statute Law has in some States provided that Jones may testify to what was said by Smith previous to the bringing of the suit; this is not true in many States.

Why Hearsay Evidence is Excluded. The reasons for the exclusion of "hearsay" evidence have been stated as follows: the original statement was not under oath; there was no chance for the jury to see the demeanor of the original witness; there is possibility of error in repetition and transmission; there is no chance for cross examination of the original witness. Of these the last reason is held by the best authorities to be the most important; the meat of the whole matter.

Exceptions. While, in general, the exclusion of hearsay evidence is well established there are nevertheless various exceptions which are very perplexing, at least in their application. Where what another man said is definitely the point in issue, and not the truth of what he said, evidence of what he said is direct and of course admissible. Such evidence is also admissible when what was said was part of the transaction; what is denominated the *res gestæ*, what was said forming verbal acts which were an important part or feature of a transaction the rest of which could properly be established by evidence.

Example of *Res Gestæ*. For instance, in Pennsylvania, a man sued a railroad for injuries from falling on the platform in alighting from a train. Declarations made by this man while he lay upon the platform where he fell, were allowed to go in as evidence as part of the *res gestæ*. In Michigan and Illinois in cases dissimilar mainly in the fact that the man had been removed from the spot where the accident occurred, the evidence was not admitted; the declarations were made not during the transaction and as a part of it, but afterward and distinct from the affair. The engineer is liable to encounter similar cases where accidents of various kinds occur.

State of Mind. It is further true that what a man said may be important as showing his state of mind and become admissible for that purpose.

Necessity and Trustworthiness. It will be found that there are, first and last, many cases where hearsay, indirect testimony, is admitted. The object of a trial is to elicit the real state of the transaction, and the rules governing the introduction of testimony have relation to this end. The purpose and tendency is to secure all pertinent evidence unless its introduction would do more harm than good. And not a little evidence of the hearsay sort is admitted substantially on the combined basis of necessity and probable trustworthiness; either one alone in most cases does not suffice. As to trustworthiness, it should be understood that the term is here applied to the kind or quality of evidence, independent of the merits of the person presenting it or of individual features of a single case under consideration.

Statements of Deceased Persons. A common case illustrating necessity is where statements were made by persons afterwards deceased. In

a murder case the dying declaration of the man slain is accepted. In the shadow of death it is assumed that there is not sufficient motive to misstate, and his statement of the cause of his death may be quoted by a witness who heard it. In a similar way, where a statement was made against the interest (at that time) of him who made it, it is assumed that there is no motive for falsification, and where death or inability to bring into court creates necessity, such statements are frequently allowed to be presented by one who heard them, or if made in writing, by one who can authenticate the writing. The statement against interest, if made by a party to the suit, is in effect an " admission," reference to which will be made later.

Against Interest. Declarations of the owner of land, while in possession, in disparagement of his own title are always admissible in evidence. Sometimes evidence of this sort touches boundaries; and the declaration of a deceased may be in the form of a map, plan, survey, or the like. In one case the question at issue was the height of a dam; the declaration of the former owner, now dead, stating the height to which he had a right to build, was admissible in evidence; this height being the lower height of those in controversy and so against his interest. It is the rule, and important, that such declarations should have been made before any suit was started touching the matter involved.

Pedigree. In the matter of pedigree and family history there is often necessity for accepting the statements made by a deceased member of the family, and generally with slight risk of untrustworthiness when made previous to the suit being brought. Dependence here would be placed upon the declarant's means of knowledge.

Depositions. Where the presence of a witness cannot be secured, there are cases where his written deposition or affidavit may be taken and admitted in evidence. The conditions allowing their introduction place them beyond the engineer's functions to handle unless under instruction. Nevertheless, the affidavit of a person who witnessed an accident or knew certain facts may be very desirable to secure. The witness may be liable to forget; from motives of friendship or other persuasion he may later be willing to testify contrary to the facts. The prompt securing of his affidavit will probably forestall all such difficulties. The affidavit, in general, will not be admissible in evidence; but if, as a witness, the man who made it should deny having made it, then there might be an opportunity for its introduction to impeach his testimony. The mere existence of such a paper will often prevent a man from testifying contrary to the statements made in it. A statement signed but not sworn to may often be secured where a sworn statement would be refused, and this is almost equally good.

Entries in Course of Business. Another exception to the "hearsay rule" is the case of books of account, or other records, made in the regular course of business; the latter feature is considered essential as an assurance of substantial accuracy, including freedom from attempted misstatement. An entry or record in such a book must have been made as a part of a series or system of entries, and at the time of the transaction or promptly after it. If any apparent motive to misrepresent should be apparent, it would render the evidence unavailable.

Surveyor's Notes. In the case of surveyor's notes, for example, it appears not to be necessary (in many States at least) that the person making the entry should himself have made all measurements recorded, or have handled all articles entered in the book. In cases where they expect to testify in court some careful surveyors, in making surveys, do read every angle and read the distances measured by tape, and themselves plot the survey; and this amount of care is eminently desirable whether absolutely required by law or not; testing the tape is also a proper precaution.

Book of Original Entry. It is not always necessary that the man who made a record shall be at hand to swear to it; the book containing it must be proved to be the book of original entry, not a copy, and the man who made the entry be unavailable at the trial. A note book containing the record of a survey, or a log book of experiments, would probably be classed with other books of original entry. The book itself must have an honest appearance and must be authenticated as a book of original entry.

Refreshing Memory. Although not connected with the hearsay rule, it may be stated that a witness occasionally refers to a paper or book, and the rule seems to be that a witness may use, to refresh his memory, a paper with dates, or calculations, or other memoranda, made reasonably contemporaneously with the transaction, provided that the witness testifies that in his present recollection such memoranda are correct. It is less satisfactory, but will probably suffice, if he testifies that in his present recollection the memoranda were correct when made.

Reputation. Reputation, that is a general reputation as to land rights and land boundaries of a public character, is also available as evidence, but apparently not as to private boundaries except so far as these happen to coincide with public lines. The courts have ruled that the boundaries established by the United States surveys are provable by evidence of common repute when the monuments have disappeared. Reputation may often rest on old maps or surveys which have been used in the community sufficiently to have acquired a reputation for correctness. Old deeds may have similar effect. In a Massachusetts case it was held that the location (of a creek) may be proved by reputation and tradition,

recitals in ancient deeds, and the evidence offered by ancient maps and plans.

Admissions. Differing in many ways from those declarations which may be established by hearsay evidence, are admissions by a party to the suit; that is, statements or actions made by the party contrary to his present position in the suit as shown by his pleadings or evidence. Statements by other parties as to such admissions are accepted in evidence. A statement by Smith that Jones owed him $50, or a demand for $50 in payment is an admission, if later a suit for $100 is instituted based on the same transaction; but an offer to settle for $50 rather than go to suit is not an admission, and not allowable in evidence against him. A failure to deny a statement made by any outside party may constitute an admission if a man reasonably careful of his reputation could not be expected to stand by without contradicting the statement.

Declarations against Interest. In somewhat the same fashion that a declaration against interest by a party now dead is admissible, a statement by one living, in disparagement of his own title, is an admission and may be presented in evidence. Where the point in issue was whether a landlord or his tenant had the duty of keeping a platform in repair, the landlord repaired it after an injury had occurred; this was held an admission of his duty to repair it. An admission by an agent, within the limits of his authority, will bind the principal who is a party to a suit. Oral admissions should always be received with some caution; the judge controls their reception as evidence, but the weight to be given them, if introduced, is finally for the jury to determine.

DOCUMENTS

Documents. Documentary evidence has been stated to include writings, printed matter, pictures, maps, and diagrams. Documents are public or private. Private documents must be introduced by evidence of their authenticity, usually by oral testimony. Every kind of private writing, except ancient documents, must be proved to have been made by the party whose act it purports to be in order to render it properly admissible in evidence; this may be by the testimony of those who can testify to the fact of its execution, or, in some States, by virtue of the acknowledgment by a notary or other qualified official. When a document has been attested, the evidence of the attesting witnesses may be required in many States, but the tendency now appears to be to require the testimony of an attesting witness only for documents (like wills) which are required by law to be attested; for other writings the signatures may be proved by one who saw them made or otherwise knows them.

Public Documents. Documents of a public nature and of public authority are admissible without the same authentication required for private writings; and copies certified by the proper officers are often used. Oral accounts of the contents of a document given by some person who has himself seen it are in some cases admissible. The advice of the attorney is essential in determining the probable admissibility of evidence of this character.

Documents *Prima Facie* Evidence. Documents are said to be only *prima facie* evidence; other evidence may be presented to offset or overcome them. Nevertheless, in many cases no other evidence of equal quality can be found and often no evidence combating them will be considered admissible. Documentary evidence of certain kinds thus becomes well-nigh conclusive. It may properly be mentioned here that any erasure in a document tends to subject it to suspicion; occasionally a document contains, just above the signature, a statement that a certain number of words were interlined on a given page, and this represents good practice.

Ancient Documents. Ancient documents (more than thirty years old) need not be proved in the ordinary way; but their age must be proved and generally by some one who has seen them more than thirty years before. Their appearance must inspire confidence, and they must have come from a custody apparently not improper, from a custody reasonable and probable in view of the character of the document. For instance, old surveys found in a surveyor-general's office have been accepted.

Ancient documents ordinarily have qualities as evidence, as to whether relevant or material, no different from other documents; but they have been admitted in some cases, where as modern writings they would not be admissible, as evidence of boundaries, title, existence of highways and of watercourses, and other purposes not of interest here.

MAPS, DIAGRAMS, AND MODELS

Maps, Diagrams, Models. Special attention may properly be given here to maps, diagrams, and models; a map of a site or a parcel of land; a diagram or a model of a structure, a machine, or a mine. One definition of a map is that it is a transcript of a region which it portrays, narrowed in compass so as to facilitate an understanding of the original. If the map is to be used in this sense, and is to constitute substantially direct evidence to this end, it must have the testimony of a witness to support it. When its accuracy is thus established, it takes its place in evidence as a non-verbal means of expressing a witness's testimony. This is well established and the rule holds as to models and to diagrams of various sorts, including photographs; these, like other diagrams, must be proved

to be true by proper witnesses. In this way they are pictorial testimony given by qualified witnesses.

Official Maps. Official maps, like any official documents, are received on the basis of their official character and without other proof of their accuracy, which is *prima facie* assumed, but which may be disproved by presenting evidence sufficient to discredit it. The lithographed maps published by the U. S. Geological Survey are frequently made with direct authorization and coöperation on the part of the State, and apparently in their official character should be admissible in evidence.

Maps for Illustration. But diagrams, maps, and models may be used in another way, when they are not introduced as direct evidence. It is well established that they may be used to illustrate oral testimony, even though they be not drawn to scale, provided some witness testifies to their substantial accuracy, no matter who made them. This can often be done without formally introducing the diagram or model in evidence. A witness may even make a diagram while testifying; he may use one he finds satisfactory, even if made by another, provided that it serves to make his testimony clearer and does not tend to mislead the jury. It is always desirable that a map, diagram, or model should be given full credit by the testimony of him who made it and knows it to be correct. In that case it has full and direct value as evidence. Nevertheless, a diagram not thus sponsored may be of great value, and should not be discarded unless ruled out by the judge; even in this case, it may be an error for him to reject it, and an appeal from his decision may be taken by the attorney.

Privileged Communications. Certain evidence is not admissible, but is "privileged," as it is called. A lawyer may refuse to divulge any communication made by his client as privileged, and this is at Common Law. The same rule holds between physicians and patients; this is not a Common Law privilege, but statutory in many States. It seems proper also that the rule should apply to communications in the nature of confessions between a member of a church or congregation and his clergyman or pastor. This is not Common Law, but prevails largely. This privilege is in favor of the client, the patient, the church member, and may be waived by them. A similar privilege exists for communications between man and wife, but this privilege in many instances cannot be waived by either man or wife.

OPINIONS

Opinions. While an expert may express opinions and is often called upon to do so, the ordinary witness may not in general express opinions. The law holds the jury to be as competent as the ordinary witness where a matter

of opinion is involved, and so is slow to allow a witness as to facts to express any opinion as to the quality or effect of facts which have come to his knowledge through his senses, of sight, hearing, or otherwise.

Exceptions. The witness may, however, express opinions as to certain things, such as:

1. The age of a man he has seen;
2. Identity of a person or object;
3. Appearance of a person — intoxicated, angry, sad, nervous, or apparently in pain;
4. Concerning another's health — sick, or rational or insane, looking well or ill;
5. Habits, as intemperate;
6. Actions — strange or childish, or short in answers;
7. Character — eccentric or fickle;
8. Reputation — good or bad.

And opinions are received as to:

1. Size, color, weight or quantity;
2. Time or distance;
3. Direction and character of sounds;
4. Whether an act was in insulting or jocular manner;
5. How an object or an act appeared;
6. Value;
7. Cold, heat, light, or darkness;
8. Dispositions of pernicious animals;
9. Sometimes the sufficiency of object for purpose intended.

Expert Testimony. There is necessity oftentimes for an analysis of cause and effect, and the bearing of facts in a more complete way than the experience of the jury (or even the judge when trying a case without a jury) would secure. Accordingly "experts", as they are termed, may testify to their opinions concerning the facts in the case. Before anyone may testify in this way, however, he must be shown to be competent. Expert testimony will receive some attention in a later chapter.

BURDEN OF PROOF

Definition. When a man brings suit against another it is necessary in law for him to prove his case; if he alleges that the man sued owes him money, he must offer evidence to that effect; unless he does so, the man sued need not prove that he does not owe him, and need not offer any evidence. The "burden of proof" is on the party suing.

If one man alleges a debt, and the second denies it, and the testimony of one appears to be as good as that of the other, and there is no other

evidence, the case falls to the ground; there is no preponderance of evidence; the burden is on the plaintiff, and the plaintiff loses.

If, in the pleadings that bring the case to issue, the defendant admits receiving money but alleges payment, the burden of proof then rests on the defendant to prove payment, and with no preponderance of evidence, the defendant loses.

Placing the Burden. In bringing a case to issue through the pleadings, there is some opportunity for skill in placing the burden of proof upon the opposite party; this is for the lawyer; but the engineer, in collecting evidence, is at some advantage if he has a proper notion as to where the burden is likely to rest.

The rule in a general way is that the party who finds it necessary in his case to affirm that a fact in dispute is true or is not true, has in substance the affirmative, and the burden of proof is on him; this burden he must support by a preponderance of evidence in civil cases; in criminal cases beyond a reasonable doubt. One test as to the burden of proof is as to which party would be successful if no evidence, or if no more evidence, were given.

The burden of proof rests on the party who wishes to support his case by a particular fact peculiarly within his knowledge, or of which he has special means of acquiring knowledge, even though this requires proving a negative. The party who finds it necessary to go forward with evidence not in negation of that presented, sustains the burden. These are some of the views which have been advanced.

Shifting Burden. When evidence has been presented sufficient to make a *prima facie* case in favor of him on whom the burden of proof rests, his opponent has two courses open; first, to combat this evidence by other evidence opposed to it, to destroy the preponderance; or, second, to introduce evidence leading in another direction, for instance to show that, if true, the evidence presented fails to make a case against him. This raises a new issue and was at one time thought to shift the burden of proof, but at present it seems to be good law that the burden never shifts.

Burden both for Competency and Weight. There may be said to be two sides to the burden of proof. On one side then there is a burden on the proper party to bring to the judge evidence of competent character tending to prove his case, and sufficient, if true, to prove it. On the other side the evidence which is submitted must be sufficiently persuasive to convince the jury by a preponderance of evidence, even though some of it may be disputed by testimony from the other side.

The importance of the burden of proof is evident; the scope of this treatise does not justify an extended discussion of this somewhat intricate question.

Lack of Evidence Presented. It has not infrequently happened that a case has been lost when sufficient evidence was at hand, because either the attorney was unskilled in presenting his evidence, which was ruled inadmissible, or was unfortunate either in the questions asked his witnesses or in their dullness in answering suitably, so that he was unable to bring out the evidence necessary to be presented by his client on whom the burden of proof rested. No effective evidence was presented, and the case was lost. Such a result has sometimes been due to failure to prepare the case properly beforehand.

Persuasiveness. On the other hand, with regard to persuasiveness, much depends upon the presence and clearness of testimony of a witness, and much finally on the skill with which the evidence is presented to the jury, depending upon the arrangement and clearness of presentation of the facts, and perhaps the eloquence or personal magnetism of the attorney.

Summing Up. When all the evidence desired (or admissible) has been presented by both parties to the suit, each attorney has opportunity to sum up, to bring to the attention of the jury the facts which seem to him important, and to arrange these in such a way as to make a clear and favorable presentation of the claims of his client. The judge finally "charges" the jury, that is, instructs them as to the law pertinent to the facts presented in the case, but in this country without expressing any opinion whatever as to the probable truth of matters in dispute as shown by the testimony. It remains only for the jury to retire, to deliberate, and to bring in their verdict, if they succeed in agreeing, which is commonly, but not always the case in civil trials.

CHAPTER III

CONTRACTS

Contracts. It is the purpose of the law to secure to every man justice and as great a measure of freedom and liberty as is consistent with the rights of others. In a community the rights of one man cannot be secured except by placing upon others certain obligations and duties towards him, and from him also are demanded like concessions in order to secure and protect the rights of others. The law therefore has formulated many duties and obligations. For instance, the law expects a man to do what he has seriously agreed to do if another will suffer by his failure to do it. We have thus the Law of Contracts.

Torts. In a similar fashion the law demands that a man shall refrain from many actions which will interfere with the rights of others. A man shall not unwarrantably deprive another of liberty; he shall not be negligent and careless of others to the extent of injuring them; he shall not trespass upon the property of another; he shall not maintain a nuisance to the disadvantage of his neighbors. We have thus the Law of Torts. Contracts and Torts constitute the best known, the most important branches of law, and the present chapter is devoted to the Law of Contracts.

Definition. A contract is a voluntary agreement, between two or more competent parties, for a valid consideration, to do or abstain from doing some lawful act. A contract may or may not be in writing. Many contracts are oral.

Essentials. There are four essentials to a contract:

1. Mutual assent to the terms of the agreement.
2. Competent parties.
3. A valid consideration, actual or presumed.
4. Definite and lawful subject matter to be acted upon.

If any of these four essentials is lacking there is no contract.

AGREEMENT

Agreement. The parties to a contract must agree; there must be an agreement to the same definite thing which creates the obligation. When the contract is in writing, the agreement is to the thing written, and when

this is signed by both parties the evidence of the agreement is definite if intelligently expressed. But an oral agreement is no less completely a contract in fact. Memory of the terms may fail or there may be a wilful denial of these terms by one of the parties; the enforcement of the contract may thus be difficult or impossible because the evidence is insufficient or inharmonious. In important matters a written contract, signed by both parties, is clearly desirable. In certain cases, to appear later, writing is required by the Statute of Frauds.

Proof. Adequate proof of any contract should be secured in those cases where a single writing signed by both parties is burdensome or out of the question. If a dealer offers to sell me 4000 bricks at $5 per thousand, and I accept his offer, the contract is made. No writing is necessary, but one is desirable. A letter or order from me to him fixes the terms, and his delivery shows his acceptance. The evidence is sufficient if there are witnesses to the delivery.

Offer and Acceptance. An offer made must be accepted without qualification or there is no contract. Acceptance must be absolute and identical with the terms of the offer; the offer and acceptance must be definite and certain. If a man offers to sell me a steam pump and I agree to take it provided it is as good a pump as the one furnished Smith, there is no contract and I cannot enforce the sale. If, however, he delivers the pump on the strength of my letter of acceptance, by that act he has accepted my qualifications and the original offer, as qualified, has become a contract.

An offer generally holds good for a reasonable time, but may be revoked at any time before acceptance. The reasonable time for which an offer holds good will differ for different contracts. Where an offer is sent by mail or telegram, the contract is made when the letter of acceptance is mailed in the post office or post box, or the telegram sent, even though a letter of revocation in the meantime has been mailed but has not reached its destination. The letter of offer and the letter of acceptance together constitute a valid contract. A copy of the letter of offer or acceptance should be retained, in case the other party fails or refuses to produce the original letter at the trial, if there should be one. As has been suggested, the acceptance may be by conduct, by acts, as well as by words (oral or written). Performance constitutes acceptance of an offer and its terms.

Implied Contract. When a person orders an article sent him and no price is specified, although he does not specifically agree to pay, the law cures this lack, and supplies the presumption that he agreed to pay. The sum to be paid will be a reasonable price. The careful man, except in minor transactions, will take care to have and preserve proper evidence of the contract or transaction, and to have the terms clear and direct.

Mistake. The agreement must be by both parties to the same thing. A mistake may prevent such an agreement. A mistake as to fact will make a contract null; a mistake as to the law will not because every one is assumed to know the law.

Mistakes of fact may be of several kinds:

Mistake as to Contract. Mistake as to the nature of the contract. As an example: If a blind or illiterate man has a paper incorrectly read to him, it purporting to be a mortgage, while it is in reality a warranty deed, he has not agreed to the paper which he signed, and this is void as a contract. It is important that the mistake shall not be the result of his own carelessness or negligence.

Mistake as to Person. Mistake as to the person contracted with. Mr. Potter became dissatisfied with the Boston Ice Company and terminated his contract with it, and contracted with the Citizens' Ice Company; this company later sold out to the Boston Ice Company, which continued the delivery of ice to Potter, who afterwards learned the facts and refused to pay for the ice. The courts sustained Potter. There was a mistake as to the party, and no contract. When a person receives goods and it is clear that he cares not who furnishes them, he may be required to pay on an implied promise for goods received, but certainly not where he relies on his contract with one party rather than another.

Mistake as to Existence. Mistake as to the existence of the thing contracted for. In one case a lumber dealer agreed to buy a tract of timber land and both parties assumed that the timber was standing. The standing timber was evidently the essence of the contract. It was later found that the timber had already been cut off. There existed a mistake of fact and the contract was void.

Mistake as to Identity. Mistake as to the identity of the thing contracted for. If I lay my hand on a barrel and say to the dealer: "Send me this barrel of cement and I will pay you $1.50," and the barrel is in fact a barrel of lime, there is no contract; he can not force me to accept the barrel. He agreed to sell me that particular barrel; I agreed to buy a barrel of cement; there has been no agreement to the same thing, no contract because there is a mistake as to the matter of the contract.

Mistake in Expression. Where there has been a clear mistake in expression in a contract, the courts will find some means to correct the contract so as to cover the evident intent. This may be done in a court of Equity to be described later.

Effect of Fraud. Fraud will render a contract voidable at the election of the defrauded party. It is essential to fraud that there should be a misstatement of fact, an intent to deceive, and that the innocent party was misled to his injury. The law imposes an obligation not to practice fraud

or deceit and will not assist one who violates his obligations in this way; therefore a contract procured by fraud will not be enforced for the benefit of the party perpetrating the fraud. Fraud will receive special attention in the next chapter, on torts.

Misrepresentation. With relation to misrepresentation made unwittingly, the textbooks on law show some divergence of opinion. In accordance with principle it is commonly stated to be the law that misrepresentations (without fraud) if made in negotiations preliminary to the contract, perhaps as inducement to it, will not suffice to upset a completed contract. A misrepresentation that enters into and becomes a part of the contract, if material, may render it void, possibly on the ground of mistake; more probably it will create a liability for damages. If a plan, which is made a part of a contract, innocently misrepresents facts and the price bid is based on the plan, this misrepresentation, if material and serious, may render the party at fault liable for damages.

Exceptions. There are several apparent exceptions with relation to representations not a part of the contract: 1. In marine and life assurance, the company must rely upon the statements of the insured and is protected not only against misrepresentations but against failure to reveal all essential facts. 2. Similarly, a wrong description of lands or the terms or conditions to which they are subject will vitiate the contract, and this is of interest to engineers. 3. Contracts for the sale of shares in corporations are in the same class. 4. In cases where fiduciary relations exist between the parties, good faith is so strongly insisted on that misrepresentation or failure to reveal all essential facts is fatal to the contract.

Engineer's Misrepresentation. Contracts for engineering construction commonly contain a provision that " the decision of the engineer shall be final " and clothe him with great powers, part of his duties being essentially those of an arbitrator. The courts are likely to hold that his position gives him a fiduciary character such that misrepresentations on his part take on the character of constructive fraud, and impose liability upon his client because the engineer is his agent.

Voluntary Agreement. The agreement must also be voluntary; if made under compulsion or duress, there can be no binding agreement. Imprisonment of a party to the contract made either unlawfully or through abuse of legal process constitutes duress and renders the agreement voidable by the party under duress. There are other forms of duress such as the imprisonment of husband, wife, or child, or any near relative; bodily harm to the party or a relative; an unlawful seizure or destruction of the property of the party to the contract; and threats may be sufficient to make the contract voidable on the score of duress. These cases may not be of great interest to engineers, but set out an important principle.

Undue Influence. Undue influence will also vitiate a contract if it be exercised by a parent or anyone having special fiduciary or confidential relations, and the same is true where the party unduly influenced is mentally weak. Guardian and ward, attorney and client, principal and agent, physician and patient have been considered to hold such relations. Such undue influence prevents the agreement from being voluntary.

PARTIES

Parties. There must be at least two parties to a contract. A man may not contract with himself, even in a case where he is acting on one side for himself, and on the other side as the agent for some one else.

Competency. The parties must be legally capable of making a contract. Persons of unsound mind are incapable of making an agreement, and so incompetent to enter into a contract; similarly, a minor, or person under twenty-one years of age, is held to be incapable, no matter how intelligent. Persons suffering from the infirmities of age or sickness sometimes have their affairs managed by a conservator appointed by the court, so that contracts in their interest may be made. A drunken person, depending somewhat upon how drunk, may be sufficiently wanting in understanding to be incapable, but, in general, ordinary drunkenness will not suffice to vitiate a contract.

Married Women. Formerly, married women could not contract, but in most States this has been changed by statute. When a contract of importance is to be made with a married woman, it is the part of wisdom to consult a lawyer so that the contract may be effective under the laws of the State where the contract is made. The fact that women transacting business have oftentimes had little training in business principles, renders a contract with a woman more liable to misunderstanding, and for that reason more care should be used in making it.

Minors. A minor may contract for necessaries, and there are other cases where a contract clearly in his favor will be enforced. A contract with a minor has the disadvantage that the minor is not bound but may hold the other party if he so desires. Contracts are sometimes void, that is enforceable against neither party; sometimes they are only voidable, that is enforceable at the option of one of the parties and not of the other. The contract with the minor is voidable, rather than void; in the case of some contracts the minor may act when he becomes of age, and ratify the contract if he sees fit. The case of the minor is abnormal since one party is held to the contract while the other is not.

Minor's Services. The father is entitled to the services of a minor, and the engineer who employs him should in strictness make a contract with the father, and make payments to the latter. This is often burdensome;

when a minor is employed and payment is made to him for a time and his father makes no objection, the courts will uphold this arrangement, but not when the father gives notice of objecting.

Curiously enough, the minor has insufficient understanding to contract for himself, but as agent for another he may legally agree and make or sign a contract. The law protects the minor; the principal who employs a minor as agent is capable of protecting himself. If the agency is important and needs to be defined by a writing, any contract for the agency would properly be made with his father, as the minor may not make this contract for himself.

Corporations. A corporation, which may be regarded as an artificial person, may be, and in fact often is, one of the parties to a contract. The contract must be signed in its behalf, and in its name, by one of its officers or agents, properly authorized. It is important that anyone either accepting the signature, or signing himself for the corporation, should have sufficient assurance that the authority is legally and completely exercised; any one dealing with the corporation should know that the party signing for the corporation has authority to do so.

An engineer is often an employee or agent of a corporation of some sort; his representative character is such, his dealings with the agents of others so common, that special attention will be given in later chapters to corporations, and to agency. A special chapter will deal with the relations of engineers to others.

CONSIDERATION

Consideration Defined. Consideration has been defined as something done, forborne, or suffered, or promised to be done, forborne, or suffered, by the promisor, in exchange for the promise. It may be a benefit to the promisor, or it may be a detriment to the promisee which gives it the quality of consideration. It must be lawful and it must be certain. If either illegal or impossible in itself, it is insufficient. It must in general be a present or future benefit or detriment; a past, completed transaction will not serve as consideration for a present promise. This means something past or done without connection with the performance of a contract. A sum of money paid at the time of the contract or even the day before for the purpose of obtaining the promise or contract would be a valid consideration. This is sometimes called an executed consideration, rather than executory which contemplates future action. A promise to do something already required by law or by public duty, however, will not serve as consideration. Forbearance, such as an agreement for the payment of additional money, or the compromise of a disputed claim is a valid consideration for a new promise to do something or to pay something.

Valid Consideration — Seal. There must be a valid consideration. A simple promise without consideration is not enforceable at common law. An apparent exception is that a written contract under seal need not have any consideration expressed. It is said that the seal imports a consideration. A plausible reason for this exception is necessity; in the case of certain writings in the nature of contracts there is no natural reason for any actual consideration. For example, some friend of a contractor joins him in a bond for the faithful performance of the contract; this friend has nothing to gain, no consideration for his promise, but the transaction is a common and a necessary one; affixing the seal is an act of some solemnity, and the law finds that the seal cures the defect. Necessity may not have been the primary cause of this legal rule or usage, but may now be considered a fair explanation of its survival and present existence. In some States there is a statutory provision that any contract put in writing is presumed to be founded on a consideration.

Seal and Scroll. A seal is a piece of wax or adhesive paper attached to the writing. In some States a scroll (or scrawl) with the word "seal" inclosed is a lawful seal; in many others it is not. Unless it is known that the scroll is legal, no chances should be taken, a seal should be used; half a postage stamp is a good seal in case of necessity.

Desirability of Seal. The question may arise, if a seal does away with the necessity for consideration, why not make all contracts in this way? One answer is that contracts are often made through offer and acceptance, or in some informal way. Another answer is that in case of a suit at law a contract or document under seal requires greater completeness of evidence in some formalities and in this way is disadvantageous. Moreover, the seal does not cure all defects; it is true of sealed instruments that in some cases reliance is placed upon a consideration expressed, in other cases, upon the seal alone. In the former case, if the consideration is found to be illegal or in any way fails, the contract may be void in consequence, for failure of consideration, even though under seal. Where dependence is clearly upon the seal, the seal alone is sufficient.

Mutual Promises. Most contracts call for the furnishing of goods or labor or both, on one side, and the payment of money on the other; these contracts are in the ordinary course of business; but contracts often consist of mutual promises, in which case each promise serves as consideration for the other. Each promise must be such as to be enforceable; if a man is so keen that he has made a contract in which the other makes real promises while he makes what are in form promises but which can not be enforced, he has overreached and there is no contract. It is held that mutual promises to subscribe to some beneficial object are enforceable although the consideration does not appear.

Inadequacy of Consideration. Inadequacy of consideration does not vitiate a contract; but it may serve sometimes as evidence of fraud in procuring the contract, or of duress, or of undue influence, or mistake. The consideration need not appear adequate, but must have some value, real or theoretical.

Failure of Consideration. Failure of consideration results when from any cause the consideration, once good, becomes incapable of being done or furnished, and it renders the contract void. Bankruptcy of a contractor would release the private party or corporation which contracted with him, although action in this matter might more often be taken on the basis of a breach of contract.

Reasonable Consideration Implied. It will be understood that often, while no consideration is expressed when goods are ordered or labor is hired, the law supplies the consideration that payment will be made, the amount to be a reasonable price, commonly the market price.

Negotiable Instruments. The laws dealing with negotiable instruments (bills of exchange, notes, and checks) are peculiar, especially touching the question of consideration which in these writings need not always be expressed. A later chapter deals with this subject.

SUBJECT MATTER

Lawful Acts. The agreement must be for the performance of some lawful act, or for the lawful abstaining from doing some specified act. The object of a contract must be lawful, both with reference to the Common Law and to statutory regulations. Engineers in their business have naturally nothing to do with wagers, which are unlawful; the buying or selling of stock on margins is practically a wager in cases where no stock in fact is transferred. Similarly, usury or contracting for interest on money at more than the legal rate is unlawful.

Licenses. Professional and commercial regulations often require licenses or prescribe restrictions. Doctors of medicine must be licensed; certain mechanics, gas fitters in some cities, must be licensed, and a contract with an unlicensed workman for personal services in his trade would be void. The formal surveys of mines for filing claims must be made by duly qualified Deputy United States Mineral Surveyors.

Sunday Laws. Of importance to engineers are the Sunday laws. Work on Sunday is forbidden by statute in most States. Frequently, work on Sunday seems necessary in the public interest, and works of necessity and charity may be legally done on Sunday. In a rapid transit subway the deepening of the foundations of a very high building, entered upon during the week, was continued over Sunday; continuous work seemed

necessary to secure safety, and this was in the public interest and the courts upheld it. If the work of repairing a railroad is of such character that it cannot be done on a week day without incommoding the public, it is a work of necessity. If necessarily done on Sunday to preserve life, health, or property, it is again a work of necessity. But mere convenience or economy of Sunday over week-day work will not justify it. Provision is frequently made by statute that certain other work may be done on Sunday, for example certain trains may be run, certain shops opened, papers sold.

Common Law Illegality. Under the Common Law, any contract promotive of crime, sexual immorality, or of torts is unlawful, being against public interest; the same is true of a contract in restraint of marriage. It is not important to include here all cases of common law illegality. Contracts derogatory to public justice, or limiting legal rights, or commercial freedom are of interest here. Certain agreements tending to encourage litigation are unlawful. As an example, a lawyer may not encourage litigation by taking cases on contingent fees; he cannot legally agree to prosecute a suit for one fourth part of the money secured; that seems unprofessional and is prohibited by law; this, however, is a provision of law which is easily avoided by a slight change in the form of the agreement, and is less effective than is desirable.

Contrary to Public Policy. The general attitude of the courts is not to encourage litigation, yet in some cases they refuse to allow persons to agree not to utilize the courts for the settlement of their disagreements, believing it contrary to public policy that these persons should part with their legal rights. For instance a passenger on a railroad train is entitled to safe passage, and an agreement to release the company from liability, even when made in writing, does not exempt the company from paying damages for injuries resulting from gross negligence on its part, even though the person was riding on a free pass. There is a general duty to the public involved, and the individual cannot waive this.

Restraint of Trade. An important class of contracts against public policy in limiting commercial freedom includes those tending to monopoly through combination, and those in unreasonable restraint of trade. In recent years, no question of law or public policy has been more prominent than both the work of the courts and the action of legislative bodies touching the regulation of combinations tending toward monopoly or to limit freedom of trade; statutory regulations must be looked to as well as the Common Law, and these are sure to be in a state of change for several years to come. But while statutory provisions may in many cases control, one should never lose sight of the broad Common Law point of view, the illegality of all contracts in unreasonable restraint of trade.

Withdrawal of Competition. Under the Common Law, an agreement for the complete withdrawal of competition is contrary to public policy and void. A man may not agree to discontinue the manufacture of water pipes; he may agree to withdraw from business for a definite time or within a restricted area, provided the time or area is not too great. In some States it has been held that an entire State is too wide an exclusion, contrary to the policy of the State; the State is sovereign and " the State " covers the entire field over which the court has jurisdiction.

Suppressing Competition. An agreement to suppress competition at a public letting of work is illegal. In this way an agreement either not to bid, or to bid higher than another (whose bid is known), are alike illegal. The parties to such a transaction are liable not only to have the contract set aside, and payment under the contract refused, but to criminal prosecution as well. In the letting of engineering contracts there has often been strong suspicion of collusion and in some cases direct evidence of it, with indictment by grand jury as a result.

Innocent Parties. An agreement, unlawful in itself, may nevertheless be sometimes enforced by the party innocent of fault, if the other alone was knowing to the illegality. An agreement illegal in part may sometimes be enforced in part. Where part of the consideration is lawful and part unlawful, the lawful part may in some cases be sufficient to prevent the entire avoidance of the contract for lack of consideration.

Clearness. An important feature of any contract is that it shall describe what is to be done, or the material to be furnished, with sufficient clearness and sufficient detail to result in securing what is wanted. This is a matter of business, of good sense rather than of law; it requires an understanding of the English language and of the business in hand; it requires a properly developed imagination so as to cover the points wherein the contract would otherwise fail to secure the results desired. Any business man who knows what are the four essentials of a contract should be entirely capable of writing simple contracts in the ordinary routine of business where the amounts involved are not large.

Engineer's Initiative in Writings. In very important contracts the best method for the engineer to pursue may often be for him to write the contract and the specifications, exercising what skill and foresight he deems essential, and then submit them to a suitable legal adviser for approval or comment and modification. The man who best appreciates the subject matter is commonly the best man to make the first draft.

Importance of Evidence. It may be appropriate finally to suggest that in making a contract, oral or written, the importance of evidence should be kept in mind; the terms of the contract should take into account the means of securing evidence in case of breach of contract by the other party.

A later chapter will deal with some of the provisions usually found in contracts for constructing buildings or public works, or for the erection of structures of various kinds.

STATUTE OF FRAUDS

Statute of Frauds. While most contracts are preferably in writing, partly to secure certainty of performance, partly from the standpoint of evidence, nevertheless, an oral contract is in general sufficient. In the case of certain contracts, however, it is provided by law that they or a memorandum of them must be in writing. Under an old English statute entitled "An Act for the Prevention of Frauds and Perjuries," written evidence must be presented in order to enforce certain specified classes of contracts.

Statement of English Statute. This Act is commonly known and referred to as the "Statute of Frauds." The reading of Section 4 of the statute is as follows:

"No action shall be brought:
1. whereby to charge any executor or administrator upon any special promise to answer damages out of his own estate;
2. or whereby to charge the defendant upon any special promise to answer for the debt, default, or miscarriage (misdoing) of another person;
3. or to charge any person upon any agreement made in consideration of marriage;
4. or upon any contract or sale of lands, tenements, or hereditaments, or an interest in or concerning them;
5. or upon any agreement that is not to be performed within the space of one year from the making thereof;
unless the agreement upon which such action shall be brought, or some memorandum or note thereof shall be in writing, and signed by the party to be charged therewith, or some other person thereunto by him lawfully authorized."

This statute has been adopted or re-enacted and frequently enlarged so that it is in force in all of the States of this country in substantially this form.

It is further provided in section 17 that

"No contract for the sale of any goods, wares, or merchandise for the price of £10 sterling or upwards shall be allowed to be good, except the buyer shall accept part of the goods so sold, and actually receive the same, or give something in earnest to bind the bargain, or in part payment, or that some note or memorandum in writing of the said bargain be made and signed by the parties to be charged by such contract, or their agents thereunto lawfully authorized."

This section also has been re-enacted and has become the law in many but by no means all of the States, and where in force, the price (instead of

£10 sterling) varies in different states from $30 to $2500; an amount not uncommon is $500.

GOODS, WARES, OR MERCHANDISE

Labor and Materials. A very troublesome question, sometimes, under this Section 17, is to determine whether a contract is for goods in completed form, or for the labor and materials that go to make them in which case writing is not necessary. An order to a manufacturer is sometimes clearly for labor and materials. The decisions in the different States show considerable divergence of view, and a later chapter on sales gives some attention to this matter.

Contracts Unenforceable. With relation to both sections of the Statute of Frauds, the proper view to take is that they do not declare the contract unlawful or void; the moral obligation is in no degree lessened by this statute; the only effect is to withdraw the aid of the courts in enforcing a contract specified by it unless made in writing; they will lend no aid to compelling its fulfilment. The statute is in the interest of morality and wise public policy, and further serves to relieve the courts of much undesirable litigation.

Obligation of Another. Under the second clause, if a purchaser is accompanied by a friend, and the friend says "if the purchaser does not pay you, I will," the contract is unenforceable unless in writing; if the friend says "deliver the article to this man and send the bill to me," it is his own debt and not another's, and writing is not required.

Interest in Lands. The fourth provision touching interest in lands, is definitely of importance to engineers. It is sometimes difficult to determine what is an interest in land under the statute. Growing crops are "goods," not an "interest in land." Standing timber, however, is part of the land and a sale would require writing. A sale after cutting does not involve an interest in the land. A contract to cut timber from the land and deliver after cutting need not be in writing. A sale of the timber after cutting might require a writing in view of the price being in excess of $50; the contract to cut and deliver would clearly be a contract for labor and materials. How easy it would be, however, for a misunderstanding to occur from lack of perfect memory as to the form in which the agreement was actually made, and how important might be the question as to where the burden of proof rests; how desirable, therefore, the writing is, whether necessary or not under the Statute of Frauds.

Interest, or License, or Easement. During construction a contractor needs to use private lands for a temporary track, or for the diversion of a stream. Does the permission constitute a lease or an easement in the land and require a writing; or is it merely a license or permit which needs no

writing? A permanent diversion of the stream would doubtless require a writing; the use of a temporary construction track for a short time would not.

Not Within a Year. The fifth provision is as to contracts not to be performed within a year. To come within this statute the agreement must be such in its terms or in its nature, that performance within the year is impossible. A contract to sell your services for a year from next Monday cannot be performed in a year. The year dates from the making the contract and not from the time of entering upon the work or the duties required by the contract.

Kind of Writing. As to the nature of the writing in these cases, it need not be a complete contract; it need not, according to the statutes in most States, have the consideration expressed. A letter, a memorandum of any sort is sufficient, if it shows the parties to the agreement (or enables them to be determined), sets forth the agreement with sufficient certainty, and is signed by the party to be charged; this satisfies the Statute. The signature need not be in full; initials will serve, or an unusual signature (even an assumed name) provided it can be established that the party wrote it, that it is his signature. Even printed initials on the back of an account book have been held to be a sufficient signature.

DISCHARGE OF CONTRACT

Discharge. A contract once made is considered to remain in force until discharged. There are several modes of terminating or discharging a contract; 1. performance, 2. breach, 3. impossibility of performance, 4. agreement or consent, 5. operation of law.

Performance. Performance is clearly the method contemplated in entering upon the contract; the simplest case is where performance is complete on both sides. In some cases one party only has performed his part, and in that case he only is discharged from further obligation. A modification of the performance, if accepted, is sufficient, and a substantial performance made in good faith will be sufficient in spite of slight and trivial imperfections, and will justify the enforcement of payment.

Completion. Whether the contract has been completed on either side is what is called a mixed question of law and fact. What any agreement means is a question of law (for the judge); what are the facts as to satisfying that agreement is for the jury; sometimes under undisputed facts a question arises as to the legal effect of these facts, and this is for the judge to decide.

Money Payment. Often a money payment by one party discharges that party; if payment is made otherwise than by cash, the question may

arise as to whether a check or draft or note is good, and whether this payment satisfies the contract; a check may be good if cashed to-day, bad if presented to-morrow after the bank has failed. When a note is given in payment, there may be a question of fact whether the contract was discharged by the payment of the note, or whether the party accepted it as a new obligation or contract whose performance by payment would then discharge the original contract. A check bad at the time issued will not discharge the man who drew the check. It may be worth while to accept it as evidence of the debt even if there is some suspicion that it is not good, provided nothing better can be secured at the time.

Tender. In some cases one of the parties refuses to accept the money payment offered, or he obstructs the performance by the other party of his contract obligations. The second party is thus forced to make a " tender " of the money or of his services, or of goods, or whatever the contract calls for. Tender may be defined as attempted performance. Tender must observe exactly the terms of the contract as to time, place, and mode of payment. Money tender must be in legal tender, and change cannot be insisted upon, nor a receipt demanded; the tender must be unconditional.

Effect of Tender. A tender of goods, of services, of labor and materials, if refused, relieves the party making it of further obligations, and suffices either to allow him to prosecute or to defend the suit, as the case may be; evidence of the tender is of course essential. The tender of money does not release a debt or obligation, but does secure exemption from paying either interest or costs of suit, the various court costs, the latter being often a large item in a long contested suit, which is true also of interest. The lawyer's charges are not a part of the cost of suit; each party pays his own lawyer.

Reasonable Time for Performance. As to the performance of a contract other than by money payment, a reasonable time will be allowed unless the time is specified, and even then, unless time is of the essence of the contract, rigid requirements may not be enforced. In a later chapter special attention will be given to the question of liquidated damages, or penalty, for non-performance as to time.

Breach of Contract. A breach of contract may be either positive or negative, that is by repudiation or by failure. The repudiation or renunciation must be unequivocal and absolute, and must be acted upon by the other party, in which case the breach is complete and releases the innocent party from further performance. The repudiation must affect the entire performance, or the essential features of the contract. Any positive act which renders performance impossible by the other party to the contract has the general character of repudiation.

Failure from Negligence. The breach may be, however, in the nature of a failure, the result of negligence or incompetence. The case here is less simple; sometimes the effect is to release the innocent party; sometimes it simply gives him the right to sue for damages after performance of his own part of the agreement. Through the action of law, bankruptcy of one of the parties is equivalent to a breach, and allows the other party to cancel the contract.

Impossibility. Impossibility of performance, which may serve as a discharge, may proceed from the act of the other party; if this be intentional, directly or by implication, it is a breach of contract. If the impossibility results without the fault of one party and through some failure or neglect of the second party, not deliberate, not intentional, nevertheless it will act as a discharge. Similarly, if impossible of lawful performance, whether through later legislation or a change in conditions affecting the legal status, as through some judgment of a court affecting the parties or the subject matter, this serves as a discharge.

If a thing essential to the performance (the subject matter) has ceased to exist, even though neither party is at fault, an impossibility is again created. When services are definitely personal, the death of the person renders the contract impossible, and frequently sickness or disability will work the same result.

Discharge by Agreement. A contract may be discharged by agreement between the parties. Sometimes a provision contemplating this contingency is made a part of the original contract. Sometimes a new contract is made which by its terms supersedes the old. Sometimes the contract is set aside by a direct agreement that it shall cease to bind either. Sometimes a new contract is substituted for the old, or a modification of its terms is agreed upon.

New Agreements. Whenever an additional agreement of any sort is entered into, great care should be exercised that such new agreement does not fail for lack of consideration. An agreement to receive less in payment than the contract specified, is void because without consideration; so is an agreement to receive an inferior quality of work or of goods. However, if less money, or a different quality of goods or work has already been accepted, it will not render the contract void.

Sometimes provision is made in the contract that the contract shall cease to remain in force if, or whenever, one of the parties shall do a certain specified act, or shall fail to do some act, or on the occurrence of an event, or even at the option of one of the parties, provided that the option be not so sweeping as to make the contract altogether unenforceable against the other.

Discharge in Writing. It is evident that it is wise to have a written agreement if a contract in writing is to be discharged; the evidence should

be clear. A contract, even under seal, however, has been set aside by a later oral agreement to do so, when the oral agreement has already been executed. Nevertheless, when any contract is to be discharged by a new contract or agreement, the latter ought to be of equal dignity with the original.

The careful engineer will see to it that any supplementary agreements are clear, that proper evidence of them exists, and that such agreements are in all respects valid and legal.

REMEDIES

Remedies for Breach. For a breach of contract there may be several remedies. Sometimes the breach operates as a discharge of the innocent party, and this is sufficient. Often money damages to the party injured, are the remedy to be pursued in a suit at law. Sometimes neither of these remedies is sufficient, and a suit in Equity is brought to secure specific performance of the contract. A later chapter will be devoted to Equity.

CHAPTER IV

TORTS

Law of Torts. The principle underlying the law of torts has been well stated by Judge Cooley:

"The maximum benefit of which government is capable is attained when individual rights are clearly and justly defined by impartial laws, which impose upon no one any greater restraint than is essential for securing equivalent rights to all persons, and which furnish for the rights of all an adequate and equal protection."

Therefore the rights of one can be secured only by imposing upon others the duty to observe those rights. So it has been said:

"Every right is accompanied by a duty."

Sometimes the duty is more evident, but sometimes the right. A somewhat similar point of view is that:

"The Common Law is generally said to consist in the established usages of the people, by which their respective rights are recognized and limited, and to which they are expected to conform in their dealings."

Definition. More specifically a tort may be defined as:

"An act or omission which unlawfully violates a person's right created by law, and for which the appropriate remedy is a Common Law action for damages by the injured person."

The right must not be one conferred directly by the terms of a contract; that is taken care of under the law of contracts.

Crimes and Torts. It is further true that certain violations of the rights of others are classed as crimes. It is a fact that crimes and misdemeanors on the one hand, and torts on the other, are both offenses against the rights of others. There is this distinction, that a tort is an offense against an individual for which the individual should receive redress, while a crime or misdemeanor is an offense which affects the general community and which the public interest demands should be punished.

Classification of Torts. Efforts to systematize and classify torts have been somewhat unsatisfactory. It is sufficient for present purposes to state that while the Common Law does not attempt to right all wrongs, nevertheless it has from time to time recognized certain rights whose violation constitutes a breach of duty of a sort which may be designated a tort, for which a suit of damages may be maintained; and attention will be called to a number of torts of special interest to engineers.

Ways in which Torts Occur. There are various ways in which torts may occur. One may take unlawful action in the nature of tort, by:

1. Actually doing something he has no legal right to do, to the prejudice or injury of another.
2. Doing something, not in itself unlawful, wrongfully by such means, at such times, or in such manner that injury results to another.
3. Neglecting to do that which he ought to do, with the result that another suffers injury.

Under the first class come trespass, fraud, and others; under the second, under some conditions, nuisance; while negligence clearly comes under the second and third classes.

LIST OF TORTS

An eminent writer has classified as torts the following: fraud; negligence; trespass; violation of right of support; violation of water rights; nuisance; conversion; procuring refusal to contract; procuring breach of contract; infringement of patents, trademarks, and copyrights; escape of dangerous things; damage by animals; slander and libel; slander of title; malicious prosecution; false imprisonment; seduction; assault and battery.

In many of these the engineer has little interest, and only a few will receive further attention here.

FRAUD

Fraud or Deceit. A duty exists not to mislead another to his injury by false and fraudulent representations. The term "deceit" is often used instead of "fraud," although fraud is a more common expression.

Requisites. In order to establish fraud before a court it is requisite that there has been:

1. A wrongful representation of fact;
2. which is material;
3. and with knowledge of its falsity;
4. with the intent that it should be acted upon by the other party;
5. who did act upon it;
6. to his damage;
7. while ignorant of its falsity.

1. **Fact.** The representation must be of a fact, not of opinion, nor a statement of the law unless made by a lawyer to one inexpert in the law. It may be made by a statement or an act. Silence will seldom have the effect of representation, although this is possible when happening in connection with other acts or statements. The representation must create a clear impression of a fact or facts.

2. **Material.** The fact must be material, and not incidental and unimportant.

3. **Wilful.** Knowledge of its falsity on the part of him who made the representation is also essential, and the law is satisfied if he made it either: (*a*) knowing it to be false; (*b*) recklessly without knowledge of its truth or falsity; (*c*) positively, when he only believed it without positive knowledge; (*d*) when it was his duty to know and the facts were within his reach.

4. **Intent.** As to the intent that it be acted on, in case of a transaction between the two parties involved, no specific proof, probably, is necessary. In any case motive is not an essential element; neither is it required to show an intent to injure the other party; that it will benefit himself is sufficient.

5. **Acted Upon.** The representation of fact must have been acted upon; however base it may have been, it can give rise to no suit unless acted upon. The party aggrieved must also have been entitled to act upon it; a rank outsider, who properly is not connected with the transaction, is not a party entitled to act. Sometimes any one of a class or community may have seen fit to act on a proposition which has general application and interest, and thus properly be entitled to a remedy by suit in tort.

6. **Injury.** There must have been injury. A suit is not appropriate when there has been no injury (beyond a loss of faith in human nature). For example, a suit for fraud based upon a note obtained by fraud is not applicable until the injury has come through the payment of the note; or in connection with a contract until some injury or damage has resulted under the operation of the contract.

7. **Ignorance.** The party injured must have acted in ignorance of its falsity. He must have been deceived by the representations. If he had equal information as to the facts, or if he acted on the strength of other knowledge, he has no case. If there was no warranty (in the case of a sale) and the buyer had ample opportunity to discover the facts and did not, he has no case.

Equal Opportunity. With equal opportunity at hand for both parties, a lack of prudence on his own part prevents a man's maintaining his suit. When a man himself reads a contract, he is not in law deceived by it; when it was knowingly misread to him, he may be able to sustain a suit for fraud.

Engineer's Duty. Under paragraph 3 (*d*) the court would be likely to decide that when an engineer sets forth facts in a plan or specifications by which a contractor or other party interested is deceived, the case is one of constructive fraud, although the engineer had no actual intent to deceive; there was a duty upon him which he failed to observe to the contractor's injury; the railroad, the city, or his client is responsible for his tortious, his fraudulent act. A contract or specification, therefore, sometimes provides that the information shown on a plan shows the facts correctly so far as known, but that their accuracy is not guaranteed.

Torts in Contracts. In general it is said that a tort grows out of duties not created by contract, but it is nevertheless true that fraud is very often connected in some way with contract, and negligence often occurs in carrying out contracts.

It appears not to be important, in the case of a contract (be it a contract of sale or otherwise) whether the false representations form a part of the contract or were a part of the proceedings which induced the contract. Whether it be a misrepresentation or a warranty, the element of fraud in it will justify an action for tort, although in some cases a suit for breach of contract might be equally allowable. Fraud in making a contract will completely vitiate it.

NEGLIGENCE

Definition. A duty exists to exercise care to avoid doing injury to another. There is required that amount of care, skill, and diligence "which circumstances justly demand," and which a "reasonable, prudent, and careful" man may be expected to exercise. An action or failure to act with such care, if injury results to another, constitutes negligence.

In the varied relations of life, and in the many positions in which one is placed, every one must exercise his rights in such fashion that others affected by such rights shall not be injured by his neglect to use due care. The continued possession of a right may be a sufficient exercise of the right to impose the duty.

Duties in Possessing Property. The possession of property, for instance, imposes duties. One must so employ his property as not to injure others; he must keep his premises in repair sufficiently so that those invited or licensed to enter, may not be injured by defects. In general he need not use great care to protect trespassers or even those invited or licensed to enter certain parts, if they wander into other parts of the premises; he may properly exercise his rights with little or no relation to these people; yet, if there is a reasonable possibility that a man licensed to enter may stray in unexpected directions, some care is necessary as to pitfalls or the like, so that this man exercising due care on his

part may not readily receive injury; even a trespasser may have a remedy if hurt by a spring-gun set by the owner; furthermore, on some premises trespassing is not unusual.

Use of Highways. The right to use a highway or street for purposes of travel must be exercised with due care to others using it. In driving a horse and vehicle or an automobile through the streets, care, and sometimes great care, is necessary to avoid collisions or to avoid frightening horses or doing some injury otherwise; it is necessary to use the degree of care that prudent, careful, skilful men find necessary under the circumstances.

Occupation of Highways. If a city or town official, or a contractor for public or private improvements, when acting with due authority, tears up the street, or digs a trench, or otherwise interferes with travel, he must protect it, perhaps by a railing or a barrier by day, certainly by suitable lighting by night, so that travelers exercising due care shall not be injured.

A householder, or any abutter on a highway, must exercise similar care when he lawfully sets out ash barrels, or builds hatchways, or when he places any obstacles on the sidewalk.

Others' Real Property. It has been said that a man has a right to dig in his own land; furthermore a man has a right to build a house on his own land; the rights are reasonably regarded as equal. The man who digs must not dig negligently, but must at least give his neighbor, the owner of the house, an opportunity to shore up and protect it; if the owner is negligent and does not shore it, the digger has the right to dig, and may even shore up his neighbor's house and charge the expense to the owner.

Duty from Contract or Statute. The action which is negligently performed may grow out of a contract, or it may be imposed by statute, or it may follow from the general exercise of a man's rights as a citizen or member of the community and a user of its facilities.

Bailment. Whenever, by arrangement, an owner puts his goods in the hands of another whom we call the "bailee," and the owner is entitled to receive them again, negligence shall not be exercised by the bailee either in the use, or in the holding and care of the goods. How much care is due depends upon the nature of the case.

1. Are the goods held or used for the benefit of the bailee? In such case considerable care must be taken.

2. Are the goods held for the benefit solely of the owner, and without payment for the service? Slight care only is necessary.

3. Are the goods held for mutual benefit? Ordinary care suffices.

Duty from Bailee. At one time three classes of negligence were recognized, growing out of the conditions above described; gross, ordinary, and

slight negligence; but the tendency is otherwise of late. Different degrees of care are necessary, it is true, but negligence is the result of lack of that care "which the circumstances demand," and the degree of care which may be negligence in one of the above cases may not be in another.

Duty to Bailee. It is further true that where an owner allows a bailee to use his wagon, for instance, the owner is negligent if the wagon is furnished in a seriously imperfect condition. The owner's obligation to a man who hires is greater than to a man who borrows; the borrower has no right to demand approximately perfect repair and safety before the owner consents to loan the wagon. It would be somewhat different if he rented it; especially if he were in the habit of renting it.

In the case of common carriers, or warehousemen, in holding goods during repairs, and in many other ways, the above subject of bailments, as it is called, is of much importance and some difficulty, but further attention does not seem wise here.

Professional Service. In the case of professional service, one must not be negligent. What amount of care is necessary for the lawyer, the doctor, the engineer, the contractor? It is well settled that either one must exercise that degree of precaution, vigilance, diligence, and skill which a reasonable, prudent, skilful man of his profession or occupation would exercise. Sometime later it may be necessary to use the skill which a skilful and properly educated man would use; but probably "skilful" includes the effect of education even now. A lawyer does not guarantee to win his case; a doctor does not agree to effect a cure. Neither lawyer nor doctor can be, nor is, free from liability to error in some part of the work; nor is the engineer or contractor. A lawyer must understand the law; the doctor must have adequate knowledge of the practice of medicine; the engineer must understand the laws of mechanics and the behavior of materials; the contractor must understand labor and materials and processes necessary in his work. The care necessary "under the circumstances of the case" is the requisite. Probably the ordinary country doctor would not in general be justified in attempting an intricate surgical operation except in an emergency. An engineer whose practice had been mainly in surveying would not ordinarily be justified in designing a bridge of unusual size and importance.

Proximate Cause. In whatever line of action or inaction it may occur, the negligence must be the proximate cause of the injury, and for this it is ordinarily enough that a chain of circumstances is set in motion which naturally results in the injury; yet if an intervening, independent accidental circumstance occurs without which no injury would have resulted, there can be no claim of negligence; nor is there liability for an accident if a reasonable, careful man could not have foreseen the unfortunate result.

Contributory Negligence. Nor under the Common Law can a man be held responsible, even if he has been negligent, if as an intervening cause the person injured has himself been negligent in a way which has contributed to the injury. This is the doctrine of " contributory negligence " which has been of much importance, especially where relations of employer and employed are concerned; and a considerable amount of Statute Law has been enacted first and last touching contributory negligence.

Comparative Negligence. In some cases there has been an attempt by statute to discriminate as to the " comparative negligence " of two parties. If the party injured contributed in any material degree to the result, the Common Law excused the party whose negligence primarily caused the injury; the doctrine of comparative negligence is not generally adopted.

While, as has been stated, the tendency now is not to recognize " degrees of negligence " nevertheless the statutes of some States do distinguish between simple and " gross " negligence.

Essentials of Negligence. In order to establish negligence in law, there must be:

1. A legal duty.
2. A neglect of this duty.
3. Injury to the one to whom the duty is owed.
4. A causal connection between the breach of duty and the injury, which makes the one responsible for the other.

Evidence. Evidence sufficient to satisfy a jury is necessary upon these points. An accident alone is not proof of negligence. It may be that the only practical means of establishing the duty is to show that the person injured was in the exercise of his rights, which it is the duty of others to respect. It is necessary to establish as facts, the acts which are claimed to constitute negligence, in such a way and in such sequence, as to satisfy reasonable men that the acts constituted negligence.

Burden of Proof. To establish negligence, the burden of proof is naturally upon the plaintiff, the one injured by the neglect. But what about contributory negligence? In some States it is sufficient that the facts presented by the plaintiff fail to show contributory negligence. In others, as in Massachusetts, it is required that the plaintiff shall establish definitely his freedom from contributory negligence. In the first case the burden of proof as to contributory negligence is in effect on the defendant; in the second case clearly on the plaintiff. In some trials the difference means the winning or losing of the case, and the rule is different in different States.

Examples. As a matter of evidence, in the case of an alleged defect in highway, sidewalk, machine, or structure, evidence of the condition of the highway or machine just before or just after the accident will be

admissible as bearing upon the condition at the time of the accident; and it is desirable, if possible, to have testimony that the condition had not changed; these points are definitely of importance for the engineer to appreciate.

Functions of Judge and Jury. When the evidence is in, it is usually a question for the jury to determine whether or not, from the facts presented, there was negligence. In general, in lawsuits when there is no inharmonious testimony, when the facts are not in dispute, the judge decides what law applies to these established facts. In a case of negligence, however, the jury decides whether the facts existing do show a lack of care; in other words, whether there was a lack of care is a matter of fact and not a question of law. Sometimes when, as it is said, it is clear that reasonable men could come to but one conclusion, the judge will settle the matter as a question of law, but for the engineer this feature of a trial is of minor importance.

Measure of Damages. What is the measure of damages? In the case of injury to property, it is in general the difference in value before and after the offense. In the case of personal injuries, loss of time, expense of illness, decrease in capacity for work, bodily disfigurement and pain, mental suffering, shock or fright; all of these may have an influence upon the award; and in the case of gross negligence, exemplary damages may be awarded from a punitive standpoint. In some cases the loss of services of the person injured, a wife, daughter, or servant, may be the measure of the damage.

Care and Foresight by Engineers. While securing evidence is an important function of the engineer in many cases of negligence, a more important duty is for the engineer to exercise sufficient care and foresight to properly design work under his control or advice, to adequately maintain it, and to see that the operation is in good hands and that proper methods are used, so that few if any accidents shall occur which are not due to the contributory negligence of any one who may suffer injury. The engineer should intend to exert more skill, care, and diligence than the law definitely demands of him; this as a matter of good business. As an example, many railroads, both as to signals and as to braking apparatus, have made improvements more frequently than the law could demand, fairly interpreted; no doubt, other illustrations will occur to the reader.

The subject of negligence is of great importance in considering the relations of master and servant, or employer and employee, and in the chapter on agency, master and servant, some additional attention will be given to negligence.

TRESPASS

Definition. A duty exists not (*a*) to enter another's lands without permission, nor (*b*) to interfere with his possession of personal property. A violation of this duty is called "trespass."

Trespass and License. The engineer and contractor have special interest in trespass upon lands, as circumstances may make it easy for them to offend in this way. It should be understood that it is not necessary always to secure specific permission to enter a man's premises; whoever has the right to possession of land holds it in general subject to easements or licenses of some sort, and there are several classes of license.

Every one in business impliedly invites the public to enter his place of business, and, similarly, every householder invites certain tradesmen and neighbors to enter his grounds and perhaps his house; there are often limitations imposed as to the extent of the invitation. In other cases, the owner or lessee or tenant expressly invites certain persons upon his land to perform certain specific acts; such license may, in general, be recalled at any time.

Legal Entry. The law in some cases permits an entry; in case of a conflagration, the public authorities enter, and with dynamite demolish the building in order to stay the course of the flames. Where a highway is impassable, the traveler may lawfully enter upon adjoining lands; this as a matter of Common Law; but curiously enough where there is only a right of way its limits must not be transgressed.

Surveyor's Trespass or License. A surveyor with his rodman enters certain premises to make inquiries and sometimes does this under license; if he afterwards remains on the land without permission, in order to make a survey, he is doubtless a trespasser. Surveyors frequently do enter lands without previous permission and there is seldom any objection. They lay themselves liable to a suit for trespass; but ordinarily they can take the risk that no exception will be taken to their action; the damages probably would be small, or nominal, but any misdemeanor committed may result in exemplary damages which may be of considerable amount.

Entry under Rights of Eminent Domain. The law in most States allows a city, a railroad, or a water works company to take lands for public uses from any owner by legal process under the "right of eminent domain," and, when this process has been pursued to the proper point, the entry on the land becomes lawful; but if the city or town neglects to use this legal process, it has no more right on the land than any other trespasser and may be made to pay damages independent of whatever may be awarded later in the eminent domain proceedings if these are afterwards instituted.

Injury not Essential. In order that a trespass be committed, it is not necessary that any injury be done; the offense lies in the unlawful entry; furthermore the trespass is against the party in possession of the land rather than against the owner. The old form of pleading in trespass recites that " with force and arms " the defendant " entered and with his feet in walking trod down and trampled upon the grass and herbage."

Trespass is against Possession. It appears that possession is considered so important that, where the possessor has only a shadow of title, the owner, not then in possession, is not allowed to forcibly enter and disturb peaceful possession. The law does not allow the owner to assume the law's function (of deciding the title) to the extent of breaking the peace; however, the owner, when in possession, may forcibly resist invasion. The engineer or contractor who desires to use lands, for storing material or otherwise, should secure permission from the party in possession, the lessee or tenant perhaps, and for some uses also from the owner; for instance the tenant has limited powers, and may cut crops, but not chop down trees without the owner's permission; a tenant certainly cannot grant to a contractor a right which he does not himself possess.

Examples. The cutting or tramping down of crops, the carrying away of gravel, stone, ore, or coal, the carting across land unoccupied or otherwise, the deposit of lumber or other material, or dumping surplus earth or rock on lands; any one of these actions constitutes a trespass. The diversion of water, or collecting surface water and discharging it in volume on land, also constitutes trespass; but not disturbing or absorbing waters altogether underground; nor casting water upon a lot as the result of grading a street; the owner may raise a bank or dike and turn it back if he cares to.

Public Rights in Highways. Land bounded by a public highway commonly carries title to the center line of the highway. In many cases, however, there are statutes providing otherwise; moreover a deed conveying land, for instance only to the westerly side line of a street, often does not convey to the center, although the element of intent is important; but deeds in fee simple to a city or town, of lands for highways probably divest the owner of all title in the street, although there are some decisions to the contrary.

The public then have rights only for the proper purposes of a highway, and where a private party uses it to store material of any sort, or plows it and removes soil, trespass results; the same is true when trees have been removed from the sidewalk or where branches of trees have been cut to allow electric lighting wires to be strung from pole to pole.

Examples. In the case of a highway under construction and duly authorized, the court decided in one case that there was no trespass although the oxen used passed on the plaintiff's land, when this was neces-

sary to the conduct of the work and no undue injury was done; and further stated that the law allows the highway surveyor to use necessary means to do such work.

But where a contractor built a duly authorized sewer in a street, he had no right to go upon abutting premises and put earth upon them; he committed a tort, a trespass, and was liable for damages. In blasting, if pieces of rock are thrown upon another's land, or through a window or roof, there is a clear case of trespass.

Engineer's Duty. In general, the railroad, the city, represented by the engineer or the contractor under his control, either of these is more likely to commit trespass than to be the sufferer from it; the nature of the duty required of the engineer is thus mainly defined.

VIOLATION OF RIGHT OF SUPPORT

Definition. A duty exists not to remove the lateral support from another's land in its natural state when not loaded with walls, buildings, or materials, nor to withdraw subjacent support. A failure to observe this duty, resulting in another's injury, constitutes a "violation of right of support."

Support of Soil Only. At Common Law, the landowner has the right to have his soil preserved intact as against its own weight by the ordinary elements, and if the adjoining owner excavates so near the line as to cause the same to crumble, he is liable for ensuing damages without regard to his care or negligence in so doing. The landowner has the right to lateral support of the soil only, but no natural easement for the support of his buildings, and upon notice of excavation in adjacent land, it is his duty to protect his building by underpinning perhaps; otherwise the excavator may enter and protect at the owner's expense, or proceed with his excavation, using ordinary care under the circumstances.

Buildings. Not only is there no liability when the weight of buildings helped to cause the soil to fall, but where the soil fell of its own weight only, and in no way due to the buildings thereon, and the buildings also fell in consequence of the dropping of the soil, the damage is measured by the injury to the soil and includes no part of the injury to the buildings. Such is the law in this country; in England a different rule prevails.

Negligence Immaterial. The offense occurs if the support of the soil is withdrawn, whether or not there has been any negligence; in proving a case, therefore, negligence need not be shown. Unlike trespass, however, actual damage must be shown or the case will be thrown out of court.

Easements Granted. It appears to be the case that, where a landowner sells land for a building, a highway, or a railroad, he grants also an ease-

ment against himself for the support of any buildings on the land at the time it was sold, or for such support as may be necessary for the purpose for which the land was sold; a deed for a railroad, for instance, often specifies land for its right of way. Frequently land is sold for the specific object of building, and the purchaser then acquires a right to the support of his buildings from the seller which he does not have as to an independent neighbor.

Underpinning Buildings. It has been ruled also that, in underpinning a building, a man who uses a prop resting on his neighbor's land has a right of support against any stranger who removes it, although he may have no case against the neighbor if he removes it, and may even be a trespasser against the neighbor by placing the prop on his ground. A simple example of the principle stated occurs when a man builds two houses on his land with foundations abutting and sells the houses to different purchasers. Each purchaser has a right of support as to the neighbor. But when two houses have foundations which abut, and these houses were erected by independent owners, no such right of support attaches.

Avoid Negligence. It should not hastily be assumed that one may remove a contiguous foundation or even supporting soil from a neighbor's building. While not liable as a matter of right of support, he must nevertheless not exercise negligence toward his neighbor. He certainly should notify him, and thus give his neighbor opportunity to protect himself; on his failure to do so he may underpin his neighbor's building, using ordinary care only in so doing. It is not uncommon for an agreement to be made by which the contractor who excavates also undertakes to protect a neighboring building. In one case of this sort, although permission was given to enter the neighbor's land for this purpose, it was held that the contractor was not justified in digging away the soil underneath the foundation; this apparently was trespass.

Legal Advice. Where buildings are valuable, where the interests are large, it will be wise to consult a capable lawyer as to one's rights, unless some one concerned in the work has already acquired a knowledge of the law applicable, as interpreted by the laws of the State in which the work is done, and this should include a knowledge of the proper form of agreement in case an owner or his contractor undertakes the work of protecting his neighbor's building.

Ground Waters and Quicksand. In the construction of a sewer or other underground work, the withdrawal of ground waters does not constitute a tort even if some settlement of adjoining soil results; but if quicksand is encountered, and it flows into the trench causing subsidence of near-by soil, a suit for violation of right of support may properly be maintained without showing negligence. If negligence can be shown, it may

be better to bring the suit for negligence, and in this case evidence of negligence must be secured.

VIOLATION OF WATER RIGHTS

Classification of Waters. There are several classes of waters whose characteristics, and the rights connected with which, the engineer should understand. A sufficient classification for present purposes is: 1. Watercourses. 2. Surface waters. 3. Percolating water. 4. Navigable waters. 5. Lakes and ponds.

Watercourses. A watercourse consists of bed, banks, and flowing water; constant flow is not essential, however; it may be dry at times. As to title or ownership, the bed of a stream is regarded as real property, real estate; with navigable streams, the title rests in the State; if the stream separates two States, it rests in the Nation. The boundary lies along the middle of the main channel, unless provided otherwise by treaty or agreement; and if a new and distinct channel is afterwards formed, the middle of the old channel is still the boundary; when a channel is constantly and slowly changing by attrition and accretion, however, the boundary changes with it.

Riparian Rights. With non-navigable streams the riparian owner on either side owns to the middle of the stream, and each has rights in connection with it.

Every riparian owner has a right to the reasonable use of water flowing past his land, but is not allowed to interfere with the lawful use of the water by other proprietors to their injury; their rights are equal to his; in general, he must allow the water to pass on undiminished in quantity and unimpaired in quality.

Reasonable Use of Water. What is a reasonable use of the water by the riparian owner? This varies somewhat in different States. In the older States, in the eastern part of the country, it is restricted to the domestic uses of home and farm, drinking, washing, cooking, and for his stock. For these purposes he probably could consume all the water of the stream if necessary, but any extensive use would be looked upon with suspicion, and would be justified only by real necessity combined with economy, and secured perhaps only after a costly lawsuit; ordinarily the reasonable use will consume comparatively little of the volume. A city or town which has become a riparian owner clearly cannot take the water for a town supply for domestic or fire purposes. In these sections of the country, a use must be clearly necessary to justify abstracting any considerable quantity; the water may not be used for the general purposes of manufacturing as distinct from power.

Priority of Appropriation. In the mining regions of the Pacific coast and in the arid regions, the reasonable use of water has been quite different; without water, mining is impossible; and irrigation for the lands is a necessity for productiveness and for the prosperity or even the existence of the community. Growing out of these necessities priority of appropriation of the water became the early custom, and was acquiesced in by the national government which was the riparian owner of the other lands on a stream; and finally Statute Laws were passed, first sanctioning the customs prevailing in mining camps, and later definitely regulating these rights along the line of priority of appropriation; Congress also passed legislation legalizing priority of possession on the public domain of the United States.

Water Power. In New England, the use of water power for mills has been of much importance to the prosperity of the community and has been favored in various ways by legal decisions. As the simple use of water power does not consume nor injure the water, it is an allowable use, and one to be protected. In some of the New England States if a man wants to build a dam to develop a water power, he may by right of eminent domain secure flowage rights over the lands above, paying of course a reasonable sum for these rights.

Mill Privileges. In Massachusetts, something of the principle of prior appropriation also exists to protect the owner of a mill privilege. If an owner erects a mill and builds a dam, he has a right, by prior appropriation and use, to the waters of the stream to run his mill, and the owners above or below must not build dams to interfere with the workings of his mill; he, on his part, however, must return to his lower neighbors all the water he has used to run his mill.

Law *versus* Economic Use. It is idle to suggest that, where no question of water power is involved, the economic use of water would best be reached if each riparian owner was allowed a considerable use for all purposes, so regulated that, while each has his share, the owner lowest on the stream should by his use exhaust it; clearly this is not the law except that, in the Pacific and arid States, some approach is made to it. The right of the riparian owner to use the water is incident and appurtenant to the ownership of the land, and this fact strongly tends to prevent legislation modifying this right materially, as this would smack of taking a man's property without due process of law and without adequate compensation, and would be therefore unconstitutional.

Lawyer Necessary. It is hardly safe to carry on any important work involving riparian rights without consulting a careful lawyer practicing in the State where the work is to be done, since the interpretation of the laws in different States varies materially. Probably in every State the water

must run past without deterioration in quality, a matter of interest to engineers in connection with water supply, with sewerage, and with manufacturing.

Manufacturing Wastes. Manufacturing wastes are often deleterious, and it may happen that continued use may lead to the acquirement by prescription of rights to discharge waste. Certainly if damage can be shown by the riparian proprietor lower on the stream, he has, if taken in time, his remedy by action at law. Even where his damage is nominal, he may bring a case in Equity (explained in a later chapter) to enjoin further pollution of the stream, for the manufacturer's rights acquired by use and prescription might afterwards be exercised with some large measure of pollution.

Anomalies. There are some anomalies in the law touching this matter. For instance, sewage must not be discharged into a stream, as that would constitute a nuisance; but, if a city is a riparian owner, the water flowing over the lands may carry street droppings and in that way bring much filth into the stream. Again cattle may go to the stream to drink and may stir the mud and otherwise foul the water; but a pigpen close to the banks of a stream is a nuisance.

Waterworks and Sewers. — A city may purchase the riparian rights of all owners down the stream and then be entitled to use the water for a public supply; the city may perhaps, by buying rights, turn its sewage into a stream provided no nuisance is created; a mill and manufacturing company may do the same and turn mill wastes into the watercourse. All work of this sort should be done only under competent legal advice.

Surface Waters. Where water spreads like a blanket in flowing over the surface, it is not a watercourse, and the law of riparian rights does not apply. An owner may appropriate so much as he likes of such water, but he must not befoul it. In many States he is at liberty to erect a barrier at the upper side of his land and turn back the water, or divert it upon a neighbor's land; in other States the law does not justify this; so again no general rule can be stated here.

Percolating Waters. When the water percolates beneath the surface, if it is known to flow in a regular channel, the owner of lands above the stream must not appropriate the waters to the injury of other owners; but this is seldom the case and, with waters percolating widely under the surface, an owner may sink his well or draw off the water for any reasonable purpose, even if it should drain his neighbor's well; the law will support him in so doing. However, it is the law, in New York State at least, that the city may not sink wells on its own land and pump large quantities of water, with the effect of drawing away water from an extensive contiguous district, for this is not a reasonable use or exercise of the right. Neither

will a man be allowed to contaminate percolating waters by building privies or cesspools where the effect will be contaminating. This matter is perhaps more peculiarly appropriate to the subject of Nuisance.

NUISANCE

Definition. Nuisance has been defined as the disturbing of

"the reasonably comfortable use and enjoyment of his property by another, or the enjoyment by him of a common right."

The test to be applied is whether the conduct of the defendant, or the state of things for which he is responsible, subjects ordinary persons in the neighborhood to material and unreasonable discomfort.

Nuisance, Trespass, Negligence. It is difficult in some cases to distinguish between nuisance, trespass, and negligence. Nuisance ordinarily means the use of one's property to the disadvantage of a neighbor; trespass, an offense against a neighbor's property; either offense may be entirely free from negligence. For a nuisance to exist it must violate some legal right, must work some material annoyance, inconvenience, or injury; that it is unpleasant or unsightly is not sufficient, and the question of intent is not important. What is a nuisance in one place, or under certain circumstances, is not necessarily so in all places and under all circumstances. In definitely residential sections, the carrying on of certain necessary trades would constitute a nuisance; the courts consider not only the thing done, but the place and the circumstances.

Injury to Health, Comfort, or Property. The injury may be either to property or to health and comfort. In most localities chemical works, gas works, slaughter houses, or any works sending out noxious or offensive odors, vapors, or stenches, such as to cause material physical discomfort and annoyance, are nuisances; the same is true of manufacturing plants where the noise, vibration, or smoke cause sufficient discomfort to residents close by. The fouling of streams or waters, whether on the surface or underground, whether ponds or watercourses, constitutes a similar offense. Along a different line, the unlawful obstruction of navigable waters, a highway, a sidewalk, or a right of way is a nuisance; also erecting or maintaining a building whose roof overhangs a neighbor's lot and discharges water from the eaves; also maintaining a dam in an insecure state, or any other structure likely to give way and do damage. Nuisance may also result from the storage of explosives or gas or oil, or a large volume of water, or of any dangerous things in a place where their escape (or discharge) will do serious injury, and where their presence is a menace to health or reasonable comfort. There is evidently an opportunity to take

action in these cases before direct physical damage has resulted, provided that injury to property has resulted, whether in rental value or otherwise.

Negligence Often a Feature. In a number of these cases, negligence is a feature of the offense, but in some of them a suit for nuisance may be instituted at once, while a suit for negligence may be allowed only after direct physical damage has followed the negligence. In the conduct of engineering work, in cities especially, there is the opportunity for the creation of a nuisance; and, perhaps in some cases where it is well-nigh unavoidable, it may be wise to trust to the good nature of the community to tolerate a temporary invasion of their rights. Sometimes, however, this may prove expensive; a firm of contractors occupied part of a public square in a large city to the injury of a hotel opposite, and finally paid $80,000 for the injury done.

Public or Private. A nuisance may be public or private. When it is purely public, an individual who suffers only as others of the public do, cannot sue for damages to himself; he must sustain damages peculiar to himself or distinct from the general public. He must then present evidence of personal damage; injury to his neighbor is not material, and evidence of it will not be accepted except for the purpose of establishing the character of the nuisance; he must show injury to himself or his household. The damages he may recover will be the amount of depreciation in the value of the property, perhaps fixed by the rental value, or they will depend upon the injury to health or comfort, and the injury established by the evidence will fix this as well as determine whether the offense does exist to an extent sufficient to constitute a nuisance.

Equity. In some cases, a court of Equity will take the case in hand, and issue an injunction against the continuance of a nuisance.

PROCURING BREACH OF CONTRACT; OR MALICIOUSLY, A REFUSAL TO CONTRACT

Duty Defined Breach of Contract. A duty exists not to bring about to another's injury a breach of contract, knowing one to exist. Originally this had application mainly in enticing servants, and no doubt still has use in this way.

Apparently one is at liberty to offer work to one employed by another and thus secure for himself a desirable employee, provided that the employee is not in some way under contract. If an engineer is under contract to serve a city, or other corporation, for six months or a year, an offer to him which results in his leaving his employer (breaking the contract) is actionable. Procuring the breaking of any other kind of contract is equally unlawful.

Refusal to Contract. A duty exists also not to prevent by wrongful means any one intending to do so from contracting with another, to the latter's damage. In some states, malicious action, even when not wrongful, is sufficient to justify a suit at law.

Actual Damages. It will be noted that in both the above cases actual damage is an element of the legal wrong. It is doubtful if cases are often brought to suit along these lines, but it is well to have some understanding of the law in the matter.

INFRINGEMENT OF PATENT, TRADEMARK, OR COPYRIGHT

While engineers may have special interest in this subject, space is not available for extended notice here. Statute laws cover the matter. A publisher can be expected to know the steps necessary to secure copyright, and a patent lawyer is essential if a patent is to be secured. If something more or different from this is needed, an examination of the statute, and the reading of a textbook on the subject would seem to be necessary.

CHAPTER V

EQUITY

Misconception as to Equity. Much misconception apparently exists in the mind of the general public as to what Equity means when used in connection with legal affairs or procedure. The opinion largely prevails that Equity is a synonym for pure right and justice unrestricted by such rules and precedents as have produced rigidity in the Common Law. In an excellent engineering law textbook it is stated that: "The less you have to do with Law, and the more with Equity, the better." This statement tends to suggest to the mind three errors: first, that the Common Law largely works injustice; second, that Equity can be asked to right most wrongs; third, that one has usually some choice as to the court to which he shall apply. None of these propositions is even substantially true.

Rules and Precedents. Modern Equity is by no means free from the restrictions of rule and precedent; it is necessarily administered by uniform rules. It is true here, just as in Common Law, that a failure to have definite rules of action laid down must result in an uncertainty which would prohibit consistent lawful procedure by any individual, an uncertainty not to be tolerated.

An Established System. Equity does in fact rely upon precedent; its principles are fixed and can be changed only by Statute Law. It is an established system, in some features as rigid as the Common Law, especially as to jurisdiction. Furthermore, in this country, to a very considerable extent, the same judges try cases both in Law and in Equity, sitting today for Law cases; tomorrow for Equity.

Delay. As to delay, while some earlier Equity cases extended over many years, at present, in most Equity cases, more speedy justice can be secured than at Common Law, if either party is duly insistent. This is especially true in the United States Courts.

Hardship. Sometimes the decree of a court of Equity, established by precedent, even works hardship and apparent injustice to an extent not usual at Common Law. In the case of water rights, an owner higher up on a stream will be enjoined from polluting the stream although the stream may sufficiently purify itself so that no material damage occurs

Engineers' Relations to Pleadings. It is perhaps more important in Equity than in Law that the evidence available should be known to the lawyer who draws up the papers either for the plaintiff or the defendant; the drawing of the papers, the pleadings, is a more critical matter in Equity than in Law, and it is important that the engineer should read these papers carefully and ask questions if need be, certainly before he signs or swears to them, not only as to facts asserted but also as to whether the remedy asked for is as complete and adequate as it should be. Any intelligent man may in that way be a valuable check upon almost any lawyer.

EQUITY JURISDICTION

Essentials of Jurisdiction. In order that a suit may be brought in a court of Equity rather than, as commonly phrased, a court of Law, it is essential that there shall be no adequate remedy at Common Law. Either the Law remedy fails to effect a full measure of justice, or the rights or titles involved are not recognized at Law. The latter condition occurs in the case of trusts, where the substantial interest lies with one party while the title rests in another; and the same is true with mortgages. In the former class are contracts; if an award in money is an adequate remedy, a court of Equity will not interfere; where "specific performance" of the contract is necessary to secure justice, a court of Equity only may assume jurisdiction. Similarly with torts, if an award in money will not effect a reasonable remedy, a court of Equity may assume jurisdiction and issue an injunction to put a stop to, or prevent the beginning of an injury; this is true as to fraud, trespass, and nuisance. When there are diverse interests involved, one of which must suffer if a Law remedy is followed, a court of Equity will sometimes appoint a receiver in an effort to protect the various interests.

Multiplicity of Suits. Resort is also had to a court of Equity in order to avoid a multiplicity of suits, which may result either from an offence recurring or from an offence in which a number of persons are involved, whether as plaintiffs or defendants. While the courts in some cases seem jealous of their rights and refuse to allow agreements to be made to dispense with a court trial, and thus "oust the jurisdiction of the court," in this case protection is given against an undue amount of litigation. The law in both cases seems wise and just.

Kind of Right to be Remedied. In order that Equity jurisdiction shall apply, the right must be one of which municipal law takes cognizance, and not merely moral law. Not only will Equity not afford relief where there has always been a full, adequate, and complete remedy at Law; but it also will not give a remedy in direct contravention of Common Law.

Titles, Rights, Remedies. The domain of Equity may be considered to embrace three important heads; equitable titles, equitable rights, and equitable remedies.

Under equitable rights are accident and mistake, fraud, notice, estoppel, election, conversion and reconversion, adjustment, liens, and unconscionable stipulations.

Under equitable remedies we find specific performance, injunctions, re-execution, reformation, rescission, cancellation, account, partition, partnership bills, creditors' bills, administration suits, discovery, receivers, protection of infants and other incompetents, and quieting title.

No attempt will be made here to cover fully the lists given above.

Maxims. As a part of Equity practice there have come into existence a series of maxims:

There is no right without a remedy.

Equity follows the Law.

Equity aids the vigilant, not those who slumber on their rights.

Between equal equities, the Law will prevail.

Equality is Equity.

He who comes into Equity must come with clean hands.

He who seeks Equity must do Equity.

Equity looks upon that as done which ought to be done.

Between equal equities, priority of time will prevail.

Equity imputes an intention to fulfil an obligation.

Equity acts *in personam* not *in rem.*

Equity acts specifically.

Equity regards substance rather than form.

There is hardly opportunity for extended explanation or discussion of these maxims, whose applications and value will develop at the conference with the lawyer in case of a suit in Equity.

TRUSTS

Definitions. For one reason or another it is not uncommon for someone to put into the possession of a second party, property not intended for the latter's own use but for the benefit or use of a third party. The second party then holds the property in trust for the third party, or beneficiary, who is called the "*cestui que trust*" while the second party is the "trustee." Smith conveys to Jones lands and securities to be held for the benefit of Smith's minor son. Jones is to pay to Smith's son interest on the securities yearly, and when the son is of age, is to convey to him all the lands and securities. It is evident that the title and possession rest in the hands of the trustee, who, however, has no real interest in the property; the real

party in interest is Smith's son, the *cestui que trust*. The Common Law looks to the legal title (sometimes to possession), and the *cestui que trust* must go to the court of Equity if his intangible interest needs protection, as it may, if the trustee fails in any considerable degree in his duty under the trust.

Express Trusts. Trusts may be express or implied. Where a trust is to be expressly created, a lawyer should be consulted; there are sufficient technicalities involved to make such procedure not only wise, but substantially necessary, in most cases. An express trust is often created by the provisions of a will.

The subject of trusts has little interest to engineers except that anyone having important dealings with a trustee under an express trust should know the terms of the trust, as the trustee's powers are limited to those created by the deed of trust; consultation with a lawyer is often advisable. Where registered bonds, or securities in the form of stock, are transferred by a trustee, it is customary now for corporations to require the filing of a certified copy of the deed of trust, an inconvenience not always anticipated by the trustee at the time of purchase.

Trustee's Duties. A trustee under an express trust is held to high standards of conduct and performance. He cannot properly act in any transaction where his personal interests may conflict with those of the *cestui que trust*. In his investment of trust funds, conservative action is demanded; a somewhat recognized standard requires that securities bought by a trustee be such as are legally authorized for purchase by savings banks. This rigid standard would not always be insisted on. A trustee may be held pecuniarily responsible in case of ill-advised and unprofitable investments.

Implied Trusts. Implied trusts result when in some transactions the title and the beneficial interests rest in different parties, or where a trustee has acquired personal title contrary to his duties as trustee. This class of trusts seems not to demand special attention here.

MORTGAGES

Definition. When a person wants to borrow money, it is common to require some form of security or pledge for payment of the debt. When the security is real estate, the common procedure is for the borrower or mortgagor to make a note and also to execute a " mortgage deed " in favor of the lender or mortgagee, as security for the note. Commonly this mortgage deed is in form a deed " in fee simple " to the mortgagee, but with a stipulation that, in case the debt or loan shall be paid on a certain date specified, the mortgagor shall be entitled to a reconveyance, or release

of mortgage; but in case of failure to pay, the property under the Common Law became the property of the mortgagee. The chapter on real property should be read to understand the nature of deeds and estates.

Equity of Redemption. The value of the property is almost always in excess of the debt, and the law has looked upon the forfeiture of this excess as a penalty, and a penalty is commonly regarded with disfavor by the law. The Common Law as it formerly stood, exacted the letter of the deed. The interest of the mortgagor in this excess seemed an interest which a court of Equity could, and did recognize and protect. This interest is called the "equity of redemption," and by virtue of it, under the earlier law, the mortgagor had the right at any time within twenty years to redeem the property by paying the debt with interest. Under foreclosure proceedings, or as the result of Statute Law, this right is, practically, never exercised.

An Estate. The courts have held this equitable interest to be an "estate" which may be conveyed, or devised by will, or go to the heir by descent. It is an estate under which the mortgagor retains possession or control, may lease, collect rents, and exercise substantially all of the functions of ownership; this is by virtue of the equitable title which rests in the mortgagor, while the legal title is held by the mortgagee. The mortgage now is held to be essentially a lien on the property. The law does not allow the mortgagor to part with this equity of redemption to the mortgagee at the time of executing the mortgage, nor at any later time, without consideration, and this a court, in many States, will insist shall be actual and real.

Foreclosure. Equity thus gives protection to the mortgagor, but it also looks after the interests of the mortgagee. The mortgage deed commonly contains a provision for "foreclosure" of the mortgage, under which a court of Equity arranges for a sale of the property for the payment to the mortgagee of all that is due him and for the return to the mortgagor of the excess, after the payment of proper costs and fees, so that a reasonably prompt remedy is provided. The equity of redemption, when this is done, ceases to exist.

In this country, in part through statutory enactments, Common Law jurisdiction is now exercised over these matters in many States.

ASSIGNMENT

Scope of Assignment. Under the Common Law, things not in possession, perhaps not fully in existence, could not be transferred or assigned. A court of Equity, however, will enforce such transfers or assignments in many cases.

A chance or possibility of acquiring an estate in lands is assignable. The share which a sailor will have in the profits of a voyage in fishing or whaling is assignable before the beginning of the voyage. A workman may assign his wages in advance unless some statute forbids. If a person agrees, for a consideration paid, to sell property at that time not acquired, a court of Equity will enforce the contract if the person later secures the property. A manufacturer assigns machinery not fully in existence to the purchaser who makes payment for it; when completed, creditors of the manufacturer attach it; the original purchaser will be granted the property.

Assignments for the benefit of creditors are regulated by statute in most States and will not receive attention here.

ACCIDENT AND MISTAKE

Accident Defined. When a document or paper is destroyed by accident, due perhaps to the "act of God," but certainly not due to the serious negligence or fault of the person entitled to its possession, and when the loss obstructs, or imperils the future assertion of rights dependent upon such possession, Equity may be called upon to give relief on account of this "accident." Where a construction bond, not in duplicate, is lost by accident a court of Equity may order a re-execution of the instrument, and similar action may be taken in case of a lost deed, or of other important documents. Where a penalty or forfeiture is provided for a failure to act or to respond within a definite period of time, if the failure has occurred through "accident" and without negligence or fault, Equity will give relief against the enforcement of the penalty or forfeiture, but not where a money payment only is involved. Cases may occur in engineering work where a failure to execute work at the appointed time would work forfeiture in some way, except that the element of accident intervened.

Negotiable Instruments. The loss of a negotiable instrument is a different matter, for that is good in the hands of any innocent holder for value, as will appear in a later chapter.

Mistake. Equity will also give relief in some cases of "mistake"; but this must be a mistake of fact, and not of law. A mistake as to the legal effect of an instrument is an apparent exception, and Equity will give relief in this case.

The mistake must be mutual, material, and not induced by negligence, if a writing is to be re-formed. The mistake may be due to failure to properly express what was intended in a deed or other writing; it may occur through misapprehension or ignorance of some important fact. A failure to write "with interest" in a note, when this was intended, has been corrected. When both parties intended an instrument to be under seal, an

omission to attach seals has been held to be a "mistake," to be rectified by a court of Equity. An agreement may, of course, be rescinded for fraud.

Engineer's Interest in Mistake. Engineers have a definite interest in the case where error appears on the face of an award, or where an arbitrator shows or admits circumstances constituting "mistake." The services of a lawyer are necessary in cases where accident and mistake are to be rectified and his advice thus becomes available before any action need be taken by an engineer.

FRAUD

Relief in Equity. Common Law often affords sufficient relief in many cases of fraud. Fraud vitiates a contract; fraud also constitutes a tort, and damages may be awarded at Common Law if a suit instituted is successful. While there is thus some measure of relief in Law, the remedies often fail to put the party in as good a position as before the fraud was committed, so that a court of Equity may properly assume jurisdiction. If a legal title has passed due to fraud, Equity may regard the holder of the title as a trustee for the benefit of the grantor, or may set aside the deed, as has been stated. A contract may be set aside for actual fraud, and also in the case of constructive fraud, where for instance one has taken advantage of another where confidential relations exist between them, as in the case of guardian and ward, attorney and client, trustee and *cestui que trust;* the decree of a court of Equity may go far to right the wrong and place the party aggrieved in a position nearly or quite as good as before the fraud was committed.

Fiduciary Character of Engineer. If an engineer unwittingly misleads a contractor as to matters preliminary to a contract, the relation of engineer to contractor is likely to be held by the courts to have sufficiently the fiduciary character to make it a case of constructive fraud, as has been suggested elsewhere.

ESTOPPEL

Definition. When A, by statement or action, has led B to do certain acts, a court of Equity will sometimes refuse to allow A to make a counter statement, however true it may be, when such a statement would lead to injustice or loss to B; even silence in some cases has the same effect as a positive act. This action is taken under the doctrine of estoppel. The point of view of some law writers is that the attempted action amounts to constructive fraud. When estoppel may be set up as a defence is a matter for the lawyer finally, but that such a remedy sometimes exists is a fact perhaps worth knowing.

NOTICE

Definition. Notice is of two kinds, actual and constructive. Actual notice is knowledge; constructive notice occurs where facts brought to a man's knowledge are such that a diligent, sagacious, and prudent man ought to make inquiry concerning them; a neglect to make such inquiry makes him liable for the consequences.

Examples. A general knowledge that property about to be bought by a man is in some way encumbered is constructive notice which requires inquiry on his part. Knowledge of unrecorded encumbrances has the same effect. An avoidance of inquiry may have, similarly, the effect of constructive notice, if clearly established by evidence. A general lack of caution, not connected with any specific matter, has not the same effect.

A person buying property under litigation has constructive notice, although he has no actual knowledge of such litigation; he buys subject to any decree against the party from whom he buys. In some States a formal statement of such litigation must be filed with the registry of deeds to constitute notice. A purchaser has constructive notice of the registration of instruments; not only of the fact of registration but of the contents of the instrument.

CONTRIBUTION, EXONERATION, SUBROGATION

Contribution. In the case of contract bonds or other debts where several parties, possibly sureties, are liable for a common debt and one pays the entire obligation, Equity will give to the one who pays, the right to recoup from the others their proportional share, under the name of " contribution."

Exoneration. In a similar way a surety who has paid a debt may look to his principal, perhaps the contractor, for reimbursement, probably including the costs of the suit, as " exoneration." It is likely to happen that the city or the railroad finds it more satisfactory to collect from the surety than from the contractor directly where both have signed the bond; the surety then needs a remedy against the contractor which the Common Law does not adequately provide.

Subrogation. Somewhat technically subrogation is the substitution of one creditor for another. In a broad sense, it is sometimes considered to be the means by which contribution and exoneration are effected. In a narrower sense, it is held to apply especially in the case where one surety, or the principal, has collateral security for the debt, in which case Equity will provide that the obligation be met by the one in possession of the securities.

RESCISSION, CANCELLATION

Rescission. There is necessity sometimes for setting aside some document or writing either because it was obtained by fraud or otherwise it ought not to stand. Such a case occurs when the legal title to lands has improperly passed by deed and where a money award will not set matters right. Resort must then be had to a court of Equity for "rescission" of the contract or deed. Any part performance by the plaintiff after discovering the fraud or wrongful act, seems to affirm the contract and is fatal to the suit. The maxim "He who seeks Equity must do Equity" finds application here. The plaintiff who asks rescission must tender everything he has received, so as to put the defendant in as good position as before, so far as possible. Where in the nature of things it is impossible to approximate to this, the court will refuse to interfere.

Cancellation. Somewhat similarly, a court of Equity will decree the "cancellation" of an instrument obtained by fraud or otherwise invalid, in cases where, while a good defence exists at present, the evidence of its invalidity might later be unavailable. This remedy is an extraordinary one, to be secured only under expert advice. A suit to clear title to land where some cloud exists on the title is a remedy of a similar sort.

To Perpetuate Testimony. There are other cases where the assistance of Equity may be asked in order to perpetuate testimony which may later become unavailable.

SPECIFIC PERFORMANCE OF CONTRACT

Specific Performance. Equity assumes jurisdiction in the case of contracts only when the Common Law remedy fails or is inadequate. In the case of a breach of contract the ordinary remedy is a suit at Common Law for damages, a favorable outcome resulting in a money award which in some cases is an inadequate remedy. A man secures from several owners contracts in writing to convey parcels of land to him; one of the owners refuses or otherwise fails to convey; all the parcels of land are necessary if the projected hotel, or business block, or church is to be built; it is impossible to secure a money award which will make the purchaser whole. In this case recourse is had to a court of Equity to secure specific performance of contract, a well recognized remedy of Equity. Specific performance of contract deals as a rule only with lands, real property rather than personal, although where the personal property is of a unique character it may apply even then. It applies also when the goods cannot be acquired in the open market if money damages are awarded. The remedy of specific performance is appropriate also in some cases where the damages cannot

be satisfactorily ascertained, and where part performance has already been done.

Within Discretion of the Court. The granting of a decree for specific performance is not regarded as a right in all cases, but often as resting within the sound discretion of the court; and although this follows in some sense from precedent, yet if the contract seems unconscionable or vague, or if otherwise the court thinks it ought not in equity and good conscience to grant a decree, it will refuse to interfere, leaving open such remedy as the Common Law affords. It is true, in general, that a court of Equity will not grant a decree which it is unable to enforce.

Money Awards. Cases may occur in which Equity jurisdiction is duly acquired, but specific performance is found impossible; in such case a court of Equity will not hesitate to award money damages, if this can be done with justice to the defendant. It is, in fact, not uncommon to award money damages as a part of the relief sought, in connection with other purely equitable relief which justifies a court of Equity in assuming jurisdiction.

UNCONSCIONABLE STIPULATIONS

Penalties or Forfeitures. Equity protects not only against fraud but also against the rapacity of a party toward another with whom he has a contract, when the latter has failed in performance of some unconscionable provision which subjects him to forfeiture or penalty. Equity will grant relief against the consequences of such provision as to penalty or forfeiture. Penalties are abhorrent in the eyes of the law, and the court of Equity will relieve against the penalty, and may either make a decree awarding the damages actually suffered, or leave the question to be settled at Common Law, depending upon the relief sought. The question of "liquidated damages" or of "penalty" is of special interest to engineers, but is discussed in a later chapter on additional contract forms.

RECEIVERS

Definition. A receiver is often a person appointed by the court upon application of an interested party to assume control of property in order to protect the interests of some party who does not otherwise have complete and certain title and control of the property. Sometimes two or more parties have interests not readily protected except when in the hands of some impartial party. Sometimes a receiver is appointed where interests are in doubt and pending their determination. The receiver appointed is an officer of the court, looks to it for instructions, and accounts to it for his doings with the property entrusted to him.

Railroad Receiverships. A common case of receivership is that of a railroad which has issued bonds as security for money borrowed to help in building; the stockholders also have contributed money and are in possession of the property and operate it. Whatever of net earnings is left after paying the interest on the bonds, is available for dividends to the stockholders who thus are alone interested in the measure of success of the business, so that normally the railroad operation is and should be conducted with a view to their advantage. If the earnings are for a time insufficient to pay interest on the bonds, the stockholders' prospect of dividends, temporarily at least, is wiped out.

Bondholders' Interest. The bondholders then become the real parties involved in the success of operation; when interest on the bonds is not paid, foreclosure becomes possible, although this is not to the advantage either of the bondholders or of the stockholders. A receivership is petitioned for by the bondholders, and the receiver appointed conducts operations primarily for the benefit of the bondholders who commonly hold a mortgage on the property, but also with due regard for the stockholders who still hold an equitable interest, which under skilful management may again become tangible and active.

Friendly Receiverships. Where such an outcome seems probable, the court of Equity has often appointed the president of the road, in what is called a friendly receivership; for if the business is conducted so as to ultimately restore the interests of the stockholders, the bondholders who have a prior security will clearly be protected, while the spirit of the law is fully complied with, with due regard for the rights of all.

INJUNCTION

Definition. An important remedy is "injunction," sometimes defined as a remedial writ commanding one to do, or refrain from the commission of, some specified act; thus it may be mandatory or prohibitory. More commonly, but not always, the form is prohibitory even when the result is substantially to dictate a positive action. When anyone enjoins or restrains another from retaining possession of certain goods from the owner, his neighbor, the action is negative; as a result he gives them up to his neighbor, a positive action. One may, however, directly and positively be compelled to restore water to its former channel, or to abate a nuisance. The remedy of injunction is directed towards preventing the beginning or the continuance of a wrongful and harmful action, while the Common Law remedy can at best only secure reparation. It is in this way one of the most valuable of the remedies of Law or Equity; in practice it is also the most prompt, effective, and complete. Injunctions in the first instance

are usually temporary, to be dismissed or made permanent after a later hearing on the merits. An apparently good *prima facie* case must be shown in order to secure even a temporary injunction.

Prevention of Torts. It may be used in many cases for the prevention of threatened or reasonably apprehended torts. After a tort has been committed, but not before, the Common Law awards damages. Where a tort has been repeated and will be further repeated, a court of Equity will often make an award to cover the whole case, past and future, in order to avoid multiplicity of suits. In order to prevent a tort, or a repetition of one already committed, an injunction may therefore be granted. This may be done especially in case of nuisance, but also for trespass, fraud, violation of water rights, violation of right of support, and some other forms of tort.

Enjoining Actions at Law. The remedy of injunction is so far reaching in its character that actions allowable at Common Law are sometimes enjoined, when such actions would result in injustice of a sort which a court of Equity can prevent. This is accomplished by enjoining litigants from pursuing such Common Law actions, but a court of Equity is slow to grant this remedy.

Engineers' Relations to Injunction. Engineers are peculiarly liable to attempt some action to which the law takes exception, and to be enjoined from such action. It may be the occupation of lands, public or private, for a railroad; it may be the infringement of some rights in connection with a water supply or a sewerage scheme; it may occur in some way with mills, or with mining plants. When an injunction has been issued, it must be obeyed; a failure to properly obey it constitutes contempt of court. The superintendent of a railroad in Massachusetts spent a year in prison for such a failure to obey the order of a court.

DISCOVERY

Definition. In Equity a right exists to compel a defendant to "discover" and disclose under oath the facts within his knowledge which are essential to the plaintiff's case, while under the Common Law the plaintiff must present evidence to make his case. He may, of course, put the defendant on the stand to give the evidence needed, but at much disadvantage.

Compelling Evidence. While in Equity the defendant cannot be forced to give "evidence tending to criminate himself," he may be compelled to uncover fraud on his part, and his lack of memory may not be excusable in a written answer where it might be in an oral examination in court. More time becomes available, also, for finding errors in the answer, or facts contradicting it.

The defendant cannot be forced to disclose matters peculiarly of defence, and is furthermore reasonably exempt from answering questions which would extract information as to private accounts, or confidential correspondence, or privileged information.

Effect of Answer Under Oath. Where an answer under oath is thus required of a defendant, the plaintiff suffers the disadvantage, already mentioned, that the answer is accepted as true unless overcome by the testimony of two witnesses, or of one with corroborating circumstances. The plaintiff sometimes may be able to make his case good by the evidence of one good witness and so prefer in his bill not to make interrogatories which the defendant can answer under oath.

ACCOUNT

Jurisdiction. Equity assumes jurisdiction in many cases to settle an account between debtor and creditor. It will not entertain a bill where an account has been adjusted, or in simple accounts such as between a banker and his customer. It is only when an account is complicated, or in some other way the remedy at Common Law gives inadequate relief, that a court of Equity is properly sought. In some cases the opportunity for "discovery" constitutes an element as to a remedy in Equity.

Examples. The assistance of a court of Equity may thus be necessary to secure an accounting between partners as well as in other cases where there are several issues involved, where the accounts are complicated and intricate, and where no jury could be expected to ferret the matter out, but where a "master" appointed by the court could do so, laboriously perhaps. The defendant in such cases may be required to state the account, when in Law the plaintiff would be required to prove his own case in full. Whether the court of Equity will take jurisdiction in cases of accounting is within its discretion.

Closing up Partnerships. In the case of winding up of partnerships, requiring the action of judicial tribunals, a court of Equity frequently must assume jurisdiction, provide for an accounting, dissolution of partnership, calling in of assets, sale of partnership property, and an equitable distribution of proceeds. A court of Law evidently is inadequate for the purpose. Sometimes a receiver is appointed to conduct the affairs with due regard to all interests involved. Sometimes, on the death of a partner, the other partners are constituted trustees of the interests of the deceased.

Principal and Agent. Sometimes in the relations between principal and agent, lack of care in the separation of the personal affairs of the agent from those of his principal may render an action in Equity necessary.

INTERPLEADER

Definition. When a man holds money or other property which it is his duty to pay over, and he is unable to determine which of two or more parties is entitled to it, he may ask a court of Equity to require the parties interested to " interplead " and allow the court to determine what disposition shall be made of the property.

PARTITION OF LANDS

Partition of Lands. Partition of lands is a subject also within the jurisdiction of a court of Equity, although there is a remedy at Common Law which, however, is lacking in efficiency. Statute Law exists in many States to control this matter. The fact that many interests in land may exist, through mortgage, lease, or otherwise, makes this a proper subject for Equity jurisdiction. The partition may sometimes be reached by an exchange of deeds; in some cases a sale of the property and a division of the proceeds is decreed as the most satisfactory solution.

Enough has been written in this chapter to give some idea of what Equity means, what its jurisdiction covers, what rights exist, and what remedies are possible under it. Actions in Equity, however, peculiarly demand the services of lawyers skilled in this branch of law.

CHAPTER VI

REAL PROPERTY

Definition. Property is divided into two classes, real property and personal property. The distinction between the two is dependent fundamentally on the fact that land is immovable so that the thing itself, the "real" thing, can be recovered; while goods and chattels are movable and recovery is often impossible, so that an action against the person involved is, with certain qualifications, the accepted remedy. Hence "real" and "personal" property.

Real property includes lands, the waters above, the minerals beneath, the houses standing and the trees growing thereon, but commonly not the growing crops.

Historical. In England after the Norman Conquest, the law of feudal tenure established the principle that the supreme ownership of land lay in the Crown. No subject could hold absolute ownership of land; he could hold only an interest which came through a grant from the King.

Estates. The interest or "estate" granted was at first for a limited period; later for life; and eventually it became possible to sell or bequeath one's estate completely, so that to the estate granted were secured practically all the elements of ownership. This fiction of ownership exists in this country to the extent that if a man dies without making a will and without heirs, the land reverts to the owner, the sovereign, which in this country is the State in which the land lies.

Estate for Years; for Life. The "estate for years" we know under the name "lease"; the "estate for life," not common in the United States, is granted during the life of some person specified, and on his death the land reverts to the grantor or the heirs or assigns of the grantor.

Fee Simple. The "estate in fee simple" is a conveyance to the grantee "and his heirs forever" and conveys a complete title, which in the United States has so many of the characteristics of absolute ownership that the necessity for the distinction now seldom needs to be considered and in some States has been done away with by statute. The fact that land or real estate cannot be removed makes possible legal proceedings peculiar to real property; the real estate remains within the jurisdiction of the appro-

priate local courts, can readily be reached through legal processes and, if necessary and proper, can be returned to its rightful owner if for any reason it has illegally been taken from him.

Delivery. With personal property, change of possession or delivery is often the critical feature that determines ownership or title to the property; with real property, actual delivery is not possible, although delivery of something forming a part of the landed estate, perhaps a twig or shrub, has in times past been performed as the equivalent of the delivery of the land. Later the delivery of the deed, the written instrument solemnizing the transaction, serves this function of delivery of the property.

DEEDS

Deed. The deed is thus evidence in writing of an executed contract for the sale of land. The Statute of Frauds requires that any contract for the sale of lands, or an interest in them, shall be evidenced in writing, and the written deed meets that requirement. The deed, however, is a very formal document and needs not only to be in writing, but also to be written by some one familiar with its requirements; it is quite a different case from that of simple contracts.

Warranty and Quitclaim Deeds. Deeds are of two principal forms or classes, "warranty" deeds and "quitclaim" deeds. In the warranty deed, the grantor engages that he is the lawful owner of the real estate and guarantees to make the grantee whole if it be found that his title to the estate is not good. The quitclaim deed passes on to the grantee whatever title the grantor has. There is commonly added to this a covenant that the granted premises are free from all incumbrances made or suffered by him. The formal words used in these two kinds of deed are in general quite different.

Form of Warranty Deed. The general form of the short warranty deed formerly used in Massachusetts is as follows:

Know all men by these presents:

That I, A. B. of....., in.....County, State of....., in consideration of.....dollars, to me paid by C. D. of....., in.....County, State of....., the receipt of which I hereby acknowledge, do by these presents *give, grant, bargain, sell,* and *convey* unto said C.D., his heirs and assigns, all that certain parcel of land situated in....., in.....County, and State of ....., bounded and described as follows: (*here follows the description*), together with all the privileges and appurtenances to the said land in anywise appertaining and belonging.

To have and to hold the above granted premises with all the privileges and appurtenances thereto belonging, to the said C.D. and his heirs and assigns, to his and their use and behoof forever.

And I hereby for myself and my heirs, executors, and administrators, covenant with the grantee and his heirs and assigns that I am lawfully seised in fee simple of the granted premises; that they are free from all incumbrances; that I have good right to sell and convey the same as aforesaid; and that I will and my heirs, executors, and administrators, shall warrant and defend the same to the grantee and his heirs and assigns forever against the lawful claims and demands of all persons.

In witness whereof, I, the said A.B. have hereunto set my hand and seal this.... ....day of.....in the year one thousand nine hundred and.....

Signed and sealed in
presence of

(Signature) (SEAL)

Phraseology. In looking at this deed the first thing of importance is the phraseology, "do by these presents *give, grant, bargain, sell* and *convey* unto the said party of the second part, his heirs and assigns." These words of conveyance seem to be important and it is advisable to use the exact phraseology that is common in the State in which the land is sold, because in other States slightly different words are often used. For instance, in another State the words used are "*grant, bargain, sell* and *confirm.*"

Another Form of Warranty Deed. The general short form of the warranty deed once used in New Jersey is somewhat different:

This conveyance made this.....day of....A.D. 19.., by A.B., of..... County, and State of....., of the first part to C.D., of.....County, and State of....., of the second part, witnesseth:

That said party of first part, for the consideration of.....dollars, the receipt of which is hereby acknowledged, has and by these presents does *grant, bargain, sell* and *convey* unto said party of the second part, his heirs and assigns, all that tract and parcel of land, situated in....., in.....County, and State of....., to wit: (*here follows description*), together with the rights, members, privileges and appurtenances, and the reversions and remainders, rents, issues and profits thereof.

To have and to hold the same unto said party of the second part, his heirs and assigns, to his and their only use, benefit, and behoof, forever.

And the said party of the first part does, for himself, his heirs, executors and administrators, covenant with said party of the second part, his heirs and assigns, that at the sealing and delivery hereof he is the owner in fee simple of the said premises hereby granted or intended so to be; that the same are free and clear of all charges or incumbrances whatsoever, and that he and they the said premises unto said party of the second part, his heirs and assigns, against all persons lawfully claiming or to claim the same, shall and will warrant and forever defend.

In witness whereof, said party of the first part has hereunto set his hand and seal the day and year first above written:

Executed in presence of

(Signature) (SEAL)

Another Form of Warranty Clause. The following form of warranty clause is used in some States:

And I, the said A.B. for myself, my heirs, executors and administrators, do covenant with said C.D., his heirs and assigns, that I am lawfully seized in fee of the aforegranted premises; that they are free from all incumbrances; that I have good right to sell and convey the same to said C.D. as aforesaid; that I will, my heirs, executors and administrators shall, warrant and defend the same to said C.D., his heirs and assigns, forever, against the lawful demands of all persons.

In witness whereof, I, the said A.B., have hereunto set my hand and seal, this.....day of.....19..

(Signature) (SEAL)

Form of Quitclaim Deed. The quitclaim deed uses different words and the following sometimes used in Kansas is an illustration:

This conveyance made this.....day.....A.D. 19.., by A.B. of..... County in the State of....., of the first part, to C.D., of.....County in the State of....., of the second part, witnesseth:

That the said party of the first part, in consideration of the sum of..... dollars, the receipt of which is hereby acknowledged, does by these presents *remise, release,* and forever *quitclaim* unto the said party of the second part, his heirs and assigns, all the following real estate, situated in the County of..... and State of....., to wit: (*here follows description*).

To have and to hold the same together with all and singular the tenements, hereditaments, and appurtenances thereunto belonging, or in anywise appertaining, unto the said party of the second part, his heirs and assigns forever. And the said A.B. for himself, his heirs, executors, or administrators, does hereby *covenant, promise,* and *agree,* to and with said party of the second part, his heirs and assigns, that he has not made, done, committed, executed, or suffered any act or acts, thing or things, whatsoever, whereby or by means whereof the within granted and described premises, or any part thereof, now are incumbered in any manner whatsoever.

In witness whereof, the said party of the first part has hereunto set his hand, the day and year first above written

(Signature)

Special Warranty. In some deeds having the general appearance of a warranty deed, a "special warranty" form is used, substantially as follows:

.....that he has not done, or suffered to be done, anything whereby said premises hereby granted or intended to be, are or may be in any manner incumbered or charged; and that he and they the said premises unto said party of the second

part, his heirs and assigns, against all persons lawfully claiming or to claim, by, through, or under said parties of the first part shall and will warrant and forever defend.

Scope of Special Warranty. It should be noted and clearly understood that this special warranty does not insure or guarantee title against any one who has a good title, or who has an adverse claim against the grantor, but only warrants or guarantees that the grantor has not conveyed the property to others or allowed claims to accrue against the property. With the "special warranty" it appears not very important whether the words used are "*grant, bargain, sell,* and *convey*" or are "*remise, release,* and forever *quitclaim.*" The deed is little better than a quitclaim deed.

Some of the old, long form deeds contain the words:

together with all and singular the tenements, hereditaments and appurtenances thereto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, and the rents, issues and profits thereof.

The terms were used when the idea was predominant that there was no ownership of land (except in the King) and when estates other than in fee simple were not unusual and when some interest in the land was either left over or reverted. They hardly need attention here.

Kent's Short Form of Deed. In Kent's Commentary it is stated:

"I apprehend that a deed would be perfectly competent in any part of the United States to convey the fee, if it has to be to the following effect: I, A. B., in consideration of one dollar to me paid by C.D., do bargain and sell (or in New York, grant) to C.D. and his heirs (in New York, Virginia, etc., the words "and his heirs" may be omitted) the lot of land (describe it), witness my hand and seal," etc.

Nevertheless the practice down from Chancellor Kent's time has been in conformity with the opinion of Lord Coke,

"that it is not advisable to depart from the formal and orderly parts of a deed, which have been well considered and settled."

Standard Forms. It is undoubtedly wise to use in each State the standard forms in use in that State, and printed blank forms are usually available. Deeds for real estate are not documents in which it is desirable to incorporate any original ideas. In many States, by statute, simple short forms have been definitely authorized.

Statute Form of Warranty Deed in Massachusetts.

I, A. B., of....., ...County, Massachusetts, *being unmarried,* for consideration paid, grant to C.D. of.....with *Warranty*

Covenants, the land in .....
and I, E.B., wife of said grantor, release to said grantee all rights of dower and homestead and other interests therein.

Witness my hand and seal this.....day of.....1917.

Provision for this is made by Statute in Massachusetts as follows:

EXTRACT FROM CHAPTER 502, SECTION 2, ACTS OF 1912

Every deed in substance in the above form, when duly executed, shall have the force and effect of a deed in fee-simple to the grantee, his heirs and assigns, to his and their own use, with covenants on the part of the grantor for himself, his heirs, executors, administrators and successors, with the grantee, his heirs, successors and assigns that, at the time of the delivery of such deed, (1) he was lawfully seized in fee-simple of the granted premises, (2) that the granted premises were free from all encumbrances, (3) that he had good right to sell and convey the same to the grantee and his heirs and assigns, and (4) that he will and his heirs, executors and administrators shall warrant and defend the same to the grantee and his heirs and assigns against the lawful claims and demands of all persons.

Heirs and Assigns. It should especially be noted that in most States, unless the words " and his heirs " are used, the estate conveyed is only an " estate for life " and not an estate in fee simple. In some States including New York, that distinction has been abolished by statute. There have been decisions that " his heir " is not equivalent to " his heirs " and the phrase " or his heirs " has been held insufficient to convey an estate in fee simple. With corporations, trustees, or others who cannot have heirs, " assigns " would appear necessary. It should be further noted that in many States, the consideration usually expressed is one dollar. In many, perhaps most States, the warranty will hold for the value of the land at the time the value is proved; in some States, however, the recovery under the warranty will be only for the value expressed as the consideration in the deed, perhaps with interest added, so that one dollar will be inadequate. An engineer who draws a deed should know what is the law in this respect in the State where the land lies.

Warranty Perfects Title. An additional distinction is that in the case of a warranty deed, if the grantor did not have a perfect title when the deed was signed and delivered, yet if at any time later he perfects his title, the warranty deed acts to perfect the title of the grantee as well. With a quitclaim deed, the grantee receives only such title as the grantor had at the time the deed was signed, and any later acquirement of title by the grantor does not cure such a defect.

Financial Ability of Grantor. On the other hand, it should be further stated that if the title be in fact defective, a warranty deed is a protection only so far as the grantor is financially able, or so far as his heirs are finan-

cially responsible, that is to the extent of whatever they received from the grantor. If the grantor fails, or if he gives away his money (to his heirs perhaps before his death so that they inherit nothing from him), the warranty gives no protection if someone else establishes a good title to the land.

What Quitclaim Deed Conveys. A quitclaim deed on the contrary conveys all the title the grantor had at the time, and if his title was then good, the quitclaim deed conveys a full and complete title.

It is wise to keep clearly in mind these distinctions between the two forms of deed.

Essentials of Deed. The deed being a formal document, there are five essential requirements. It must be (1) signed, (2) sealed, (3) acknowledged, (4) delivered, and (5) recorded.

1. **Signed.** There appears to be no legal requirement that the signature should be in ink, but with a formal document a signature in pencil is undesirable from good business principles, on account of its lack of permanence and the possibility of erasure and change. It should be understood also that any interlineation or erasure in the body of the deed or of any important written document raises suspicion. The party offering it as evidence has the burden of proof to show that it is genuine and that the alterations were properly made. It is further necessary that the deed should be written (or printed) on paper or parchment; a shingle, or a piece of tin or aluminum, or a skin not made into parchment, will not suffice.

Witnesses. In some States, but not all, witnesses to the signature are necessary. It is not necessary in any case that the signature be made in the presence of witnesses as in the case of wills; a later statement to the witness by the signer is sufficient. If the grantor cannot sign his name, it is customary for him to make his cross, or "mark," with his name written by someone else against this; ordinarily there should be two competent witnesses to his mark.

Wife's Signature. The signature of the wife should, in nearly every State, be taken either to the deed itself or by a separate document releasing her right of dower.

2. **Sealed.** The deed should also be sealed; and the seal is some adhesive article, formerly a wafer, more commonly a round piece of paper with mucilage or something adhesive to make it stick. Where no regular seal is at hand, anything which can be stuck to the paper will serve the purpose, and a postage stamp or half a postage stamp will readily serve the purpose. In some States it is sufficient to make a "scroll" or "scrawl" with a pen with the word "seal" written in the middle, or have a similar device printed in the deed, but in several States this is held not to be legal, and one should not adopt this expedient unless he is sure

that the law authorizes it. There are some States in which a seal is not required.

3. **Acknowledged.** The deed should also be acknowledged before some authorized officer. Most deeds are acknowledged before a notary public who is authorized by the State to act in that capacity and who uses (as authorized by statute) a seal which stamps an impression into the paper; he often attaches (sticks) a piece of paper before stamping the impression. An acknowledgment before a justice of the peace is almost everywhere equally satisfactory, although he does not have a seal as the notary does. The notary or justice of the peace ought to know the form in which the acknowledgment should be made and it is not important that the engineer should be specifically posted upon that point. Where a deed is acknowledged outside the State in which the land lies, it is advisable that the statutes should be consulted to see in what form the acknowledgment should be; the specific statutory requirements must be strictly observed. In some States, as in Massachusetts, it is sufficient and customary that only one of the parties to the deed shall make acknowledgment of his signature; it must be a party having an interest in the land. In most other States all the signatures should be acknowledged, and in some States the signatures of witnesses must also be acknowledged. The form of acknowledgment to the wife's signature is commonly fixed by statute and should be rigorously followed. Other words, "just as good," will not serve the purpose. The acknowledgment is necessary before a deed can be recorded; it also has value from the standpoint of evidence in the direction of proving the signature to the deed.

4. **Delivered.** A deed for land, signed, sealed, acknowledged, but locked in the grantor's desk and found there perhaps after his death, does not convey the land. Delivery is necessary; there must be some act indicating delivery. It has been stated that originally some sort of delivery of the land was made; that is, some small shrub or weed was delivered to the grantee as a symbol of delivery. In the case of real property, delivery of the deed is effectively the delivery of the property. Sometimes a deed is delivered or put into the hands of a third party, to be held "in escrow" until final payment is made or some specific act performed, when it is to be delivered to the grantee. The delivery of the deed to the grantee in this case may be made after the death of the grantor; in passing the deed to the third party, an act of delivery by the grantor has occurred.

5. **Recorded.** A deed is recorded at the office of the Recorder of Deeds, or the County Clerk, or whatever officer is specified by law for such duty. When properly executed and acknowledged and so recorded, it becomes a notice to all the world of the transaction shown in the record, and any one engaging in a transaction as to that property does so with

knowledge of the transaction. It will not be recorded unless acknowledged. If a grantor either accidentally or wrongfully conveys the same real estate to two different persons, the one who first records his deed will take title to the property in the absence of fraud on his part, no matter who first received his deed. In some States, however, there is fixed by statute a limited time within which the deed of earlier date prevails. The recorder generally notes on the deed, the year, month, day, and minute, that the deed was received; this is done at the time the deed is handed to the recorder. In many cases where convenient, the deed is signed, the money paid, the deed delivered and at once recorded, all these transactions occurring in the recorder's office; the money is not paid until a final inquiry is made at the desk whether any deed or other paper affecting that property has recently been recorded. This represents good practice. In some States a deed recorded need not be otherwise proved, but this is not the case in most States; deeds more than thirty years old are ancient documents and do not require direct proof.

TITLE

Search of Title. Before a conveyance of real estate is accepted, that is commonly before the deed is made, and more certainly before the money is paid over, a careful search of the title should be made to see that a continuous line of title exists from some very early date until the time of the conveyance. This proceeding consists of two important parts. First, to see that the chain of title is complete; for instance, with lands granted by the United States Government, that the patent from the United States to A and subsequent deeds from A to B, B to C, C to D, etc., form an unbroken chain from the beginning to the party about to convey the land. There must be no deeds of this land from any of these to parties outside the chain. In many of the older settlements, the chain is carried back, not to the beginning, which may not be possible, but only to a point which seems safe. Second, to see that the various conveyances are in proper form and sufficient, so that the chain of titles does in fact, as well as in appearance, convey a good title.

Title Abstract Companies. In many of the Western States the title can be traced back to the grant from the Government of the United States, and there are "title abstract companies" which have compiled records which show every transaction touching every particular piece of land in a county. In a fashion, it is a special form of index, where for each piece of property a list is made of all the deeds which have passed touching that particular piece of land.

Title Insurance Companies Conveyancers. In Eastern cities there are "title insurance companies," and firms of lawyers who announce them-

selves as "conveyancers," and who make a special business of examining titles and reporting on them. In these older parts of the country, it is not always possible to go back to the original grant, but conveyancers go back far enough to satisfy themselves that there is no difficulty beyond the point from which they start. The conveyancer in the East not only looks up the chain of title from party to party, but he also passes upon the question whether each deed is satisfactory and does in fact properly convey what it purports to convey.

Scope of Abstract of Title. The abstract of title obtained in one of the Western States is simply a list of deeds touching that property, and the services of a competent lawyer are needed to make sure that those deeds are properly drawn, and do in fact constitute a complete chain of conveyances; that the deeds are adequate, and do properly convey title of the land.

Mortgages, Taxes, Judgments. Besides deeds proper, it is necessary to look for mortgages, taxes, assessments for sewers, betterments, wills, contracts to convey, judgments of the court, attachments in the case of suits started, and whatever else may tend to constitute an encumbrance, or impair the title of the estate. All such work should be done, however, by a competent lawyer, familiar with this class of work, unless an engineer has acquired an adequate experience under a lawyer, so that he is capable of looking up such matters himself.

Land Courts. In several of the States, Land Courts have been established for perfecting or "quieting" title, following the so-called "Torrens" system of Australia; the name used may vary in different States. Provision for this is made by statute whose express directions must be strictly followed. Application is made to this Land Court, which notifies all parties thought to have an interest in this land or its boundaries; an examiner of the court makes a thorough search of the title; a hearing is had, and the title confirmed if everything seems all right. The title is then secure to the party making the application. Occasionally, but rarely, some party having a valid interest appears later and succeeds in proving his claim. This claimant is nevertheless denied possession or title to the land, but is paid damages by the State from funds derived from fees paid by the reputed owners of land as part of the requirements for securing the confirmation of title by the Land Court. For a single conveyance of land, the process is somewhat expensive. Later conveyances are much less expensive. It seems probable that the Land Court will steadily grow in favor.

LEASE

Lease. What is sometimes called an "estate for years" is better known as a "lease," and in this is involved the law of "landlord and tenant." A lease need not be for as much as a year, it may be for a determinate

number of days or months. It must be for a certain term, although it may be possible that circumstances will effect an earlier termination; an instance is a lease for ten years if the tenant shall live so long. The tenant does not acquire an "estate" in the land until he has made entry upon it; he is, however, entitled to possession.

Statute of Frauds. It being an "estate" when acquired, a clear interest in land, a writing is necessary under the Statute of Frauds. If the lease is signed by an agent, it is essential in some States that his authority to sign shall be in writing, but not in all States; it is important in any case to know the law in any State. Sometimes there is a question whether a writing is really a lease or only an agreement to lease. The writing made by any engineer should make this clear.

Rent. The provisions for payment of rent should be clear; the period, whether monthly, quarterly, or yearly, should be specified; if payment in advance, or payment on demand, is not specified, the tenant must pay rent before sunset on the last day of the month or other specified period. A failure to do so might lead to forfeiture, but most landlords are accustomed to allow some days of grace, and the lease (a contract) would hardly be forfeited unless payment of rent was first demanded, or unless the rent remained unpaid for a full month or other full period. Landlords or their agents often ask the tenant to sign iron-clad agreements favorable to the landlord. The tenant should read any lease before signing it.

Tenant Can Not Dispute Title. The law does not allow a tenant to dispute the title of his landlord while he is a tenant. If a man has a good title to a piece of land, it is wiser for him to avoid being a tenant of another who makes any claim to it.

Tenancy without Lease. In many cases a tenant holds real estate without a lease, paying rent every week, or month, or quarter, or perhaps year. Under such circumstances, either landlord or tenant may terminate the tenancy upon notice equal to a full rent period and terminating at the end of such regular rent period. In some States, a tenancy for a year or series of years needs only a half year's notice, and in some localities there are local customs fixing the amount of notice, for example, at two weeks when the rent is payable monthly. Unless otherwise provided, a lease is assignable.

Buildings and Improvements. In general, whatever of buildings or improvements stands upon the lands and whatever grows upon the lands, belong to the landlord; but under a lease, the tenant is entitled to the crops of annual planting or requiring special annual care if planted by the tenant, even if the lease be fortuitously terminated before the full term; but the grass, or clover, or annual fruits, would not go to the tenant unless his term covered the harvest time. The same question is involved

in selling lands or the crops on them. If the full term of the lease expires before harvest time, the crops do not belong to the tenant; he foresaw the result when he planted. Nursery trees and shrubs raised for sale belong to the tenant on the same basis as for other crops.

Death of Tenant. In case the lease is terminated by the tenant's death, crops ripe and ready for harvest go to the personal representatives of the decedent; they go to the executor rather than to the heirs, and he is entitled to reasonable time to remove them; this is true also of a purchaser of such crops sold standing. If already cut, crops are entirely severed from the real property and are personal property. Manure on the land is held to be part of the real estate.

Engineer's Knowledge of Rights of Parties. The engineer may need to purchase or to pay for crops or materials and should have some knowledge as to ownership. He may also for some reason (or his contractor may) encroach upon lands, and he should have some knowledge as to whose rights he has violated, or who has suffered damages. In this connection, it may be stated that not only are growing crops sold standing, but trees are also sometimes sold standing by the landlord, and may thus become the personal property of the purchaser.

Trespass. It has been stated in the chapter on torts that a trespass is against the person in possession, the tenant if there be one. In the case of trespass on leased land, if trees belonging to the landlord are cut or damaged by a person other than the tenant, the landlord has not the right to enter upon the land to prevent the damage. He has a remedy of another sort, but through a suit where a lawyer is necessary.

Clearing or Improving Property. Trees are a part of the land, and the tenant may not remove or use them except for fuel, fences, and certain other improvements; even this would be allowable only where trees were reasonably abundant and the term of the lease not unduly short. Under some circumstances lands may be cleared by the tenant. Tenants in some cases have been held justified in opening gravel or clay pits, when in the locality it was customary to improve the property in that way; but the sale of clay or gravel by the tenant for pure gain would not be allowable even if the property were improved thereby. Under some circumstances buildings even may be removed, but this should never be done except under a lawyer's advice; the rule is that they belong to the landlord.

Fixtures. The question of fixtures is also an important one, and affects not only landlord and tenant, seller and purchaser, but also the executor of an estate and the heirs who inherit the real estate. In dealing with these various parties engineers necessarily have an interest in any transactions necessarily had with them, as well as when the engineers or their clients are directly parties.

Apparatus. In the case of a mill, the engines and other apparatus peculiar to the business go as part of the realty; but a steam engine equally available for any mill or manufactory has been held to be personal property. In a case of this sort where the interests are large, whether a sale or lease is involved, the terms of the sale or lease should be made explicit and the services of a lawyer should be secured.

Specific Agreements. In the case of a long lease, provision may be specifically made that the tenant may erect certain buildings with the privilege of removing at the end of the lease; in certain cases, a building constructed altogether above ground and readily removable has been held to be the personal property of the tenant who erected it, but this is somewhat abnormal.

Minor Fixtures. In the case of minor fixtures, the general rule seems to be that, between landlord and tenant, anything provided by the tenant remains his if easily removed without injury to the building; if its removal will injure the building, it is a part of the realty. In this way fixtures applied by screws might be considered personal property, while similar fixtures attached by nails would be realty. Gas fixtures seem to be personal property. It is often possible in a sale or lease to agree, in writing, upon matters otherwise liable to result in disagreement.

TENANTS IN COMMON

Tenants in Common. The case of tenants in common deserves consideration. This is not a case of landlord and tenant; for instance, where two or more tenants occupy separate parts of a house or office or farm. The case of tenants in common occurs when two or more parties by inheritance, perhaps, have each an interest or estate in lands, interests which are not separable, so that the tenants hold in common. A simple case is where two persons inherit together a piece of land by descent or by will. Neither can then convey any specific part of the lands; it requires the action of both; but either may convey his undivided interest. The tenancy in common may be terminated by conveyances portioning the lands, or partition may be forced through legal process. Ordinarily, tenants in common will hold equal estates, but by will or conveyance one may acquire an estate in fee simple, the other a life estate; and other cases may occur.

EASEMENTS

Definition. An "easement" has been defined as the right which the public or an individual has in the lands of another, not inconsistent with the property of the latter. When a man has the right to have surface water flow over his lands, or upon the lands of another, or to have a brook flow

past another's lands upon his own, there is a "natural easement." The right of support to his soil against his neighbor is another case.

Actual Grant. An express permission or right of way across one's lands makes an easement by "actual grant," and the Statute of Frauds requires that this must be in writing; the terms are shown by the writing.

Implied Grant. If a man sells a back lot accessible only through the front lot, the law provides an easement by "implied grant," a right of way over the front lot. Even then a lawsuit may be necessary to settle which part of the front lot shall be so used. It is wise, therefore, in making such a purchase or such a sale, to have a writing defining the easement, the right of way. Where an easement by actual grant or by implied grant has been given, a deed to such land can hardly be given "free from all incumbrances."

Prescription. When an apparent right or privilege, such as the use of a path across a lot, has been enjoyed for a long time, an easement by "prescription" is secured. The occupation or use must be adverse, that is, to the disadvantage of the owner, without permission, or under some apparent claim of right, and open and reasonably known to the owner. It must also be uninterrupted and frequent enough to have the quality of continuity. The length of time in many States is twenty years. Similarly the failure to use an easement by prescription for twenty years presumes an abandonment of the right. In England, an easement to the use of light and air could be acquired by prescription, but that appears not to be the case in this country now.

It is well that the engineer should know that title to the land itself may sometimes be acquired by prescription, so that occupation adverse to the formal title should not be passed over too lightly when lands are to be acquired and an owner compensated.

The laws controlling title by prescription are contradictory in different States and a lawyer is necessary to pass upon such titles.

LICENSES

Definition. A "license" is inferior to an easement; it is only an authority to do a certain act or acts upon another's land. There is no necessity that it be in writing. It may be expressed or implied. An implied license is granted ordinarily to enter the premises for people to do business with the occupant, but not for other purposes than transacting such business.

MORTGAGE

Definition. A mortgage is a conditional conveyance of an estate as a pledge for the security of a debt, and to become void if the debt is repaid.

Commonly the debt is evidenced by a promissory note, for which the mortgage is security. The note is then a personal claim against the mortgagor, in addition to the mortgage; without the note, the mortgagee can look to the land alone for satisfaction. The mortgage, like other deeds, must be recorded.

Legal Title. The legal title is considered to rest in the mortgagee; but in equity the mortgagor remains the actual owner and holds a legal title against everyone except the mortgagee; until debarred by his own default or legal decree, he is entitled to possession, can convey his estate, and in case of death the estate goes to his heirs, in all cases subject to the mortgage. In case of non-payment, the mortgagee may have the mortgage foreclosed, the property sold, and this is commonly provided for in the mortgage deed.

Equity. In Equity, although the mortgage may provide that title to the property shall rest permanently in the mortgagee, in case the mortgage note is not paid at the required time, the mortgagor holds an "equity of redemption" for a time; the direct and immediate forfeiture of the property has the character of a penalty which the law abhors. The length of time for redemption is commonly defined by statute. The foreclosure of a mortgage is not a job for the layman, but for the practising lawyer. The making of a mortgage upon a well established blank form, however, is not an intricate affair, after it has once been understood. The subject of mortgages has received attention in the preceding chapter on Equity.

Release of Mortgage. A mortgage is sometimes released by an entry made on the margin of the book in which the mortgage is recorded. A better method is to have a formal release of mortgage and record this. In case of loss of the book of records by fire or otherwise, the release may be valuable, although the mortgage itself with the note has probably been surrendered to the mortgagor at the time of payment.

ACQUIREMENT OF LANDS FOR ENGINEERING PROJECTS

Methods of Securing Lands. Where lands are required for engineering projects, there are several ways in which they may be secured. Sometimes the advantage to a community or to individuals is such that the lands are given gratis. In other cases, the engineering improvement, perhaps a railroad, seems so desirable that the people owning the required lands are willing to sell at very favorable prices, and it is not uncommon that an agreement to sell may be made by the payment of a very small sum. In such a case, the agreement or bond for a later deed should be in writing. It is desirable to have it acknowledged and also recorded so that anybody buying the land shall buy it subject to notice of such agreement. A large

share of transactions, however, are by simple bargain between the parties and the passing of a deed, either at once or with reasonable promptness.

EMINENT DOMAIN

Definition. When the owner of land refuses to sell, and the improvement is of a public character, the law allows that land shall be taken by the sovereign, the State, under what is called the " right of eminent domain." It is the law that private lands can not be taken by another for a private use; but many improvements of great importance to the community as a whole, would become impossible if private lands could never be taken without the owner's consent. For the purposes of a street, or a sewer, for the laying of a water pipe, also for the purpose of building a railroad, in which as a public carrier the public has rights, it is held that the project is a public use, so that the legislature is justified in granting to the city, or town, or to the railroad, the right to take the lands by this " right of eminent domain." In some States, lands may be thus taken for water power.

General Procedure. The general procedure in most, and perhaps all States is this. It is essential that no agreement can be reached between the parties, and in order that there may be disagreement, it is necessary that the city or railroad shall make the owner an offer which he refuses, and that the owner shall name his price which the city or railroad refuses, or else that the owner refuses to name any price.

Disagreement. There must be a definite failure to agree. In the case of minors who hold title to the property, it may be impossible from the legal standpoint that any agreement should be reached, as the minor can not make any agreement.

Commissioners. After disagreement, taking the case of a railroad, the railroad applies to the court for the appointment of commissioners to value the land; in many States a commission of three is appointed, commonly by the court. In some States, as in Massachusetts, the three County Commissioners in which the land lies, are by law designated as the commissioners to determine the value of the property taken. These commissioners view the land, if they see fit, take such testimony as they care to, and make their report or award to the court. After this award is made, if each of the parties is satisfied or does nothing further, the land becomes the property of the railroad on payment of the specified sum. In case either party is dissatisfied with the award, an appeal is taken and the case is tried before a jury, in this way preserving the rights which the owner had that he may not be deprived of his property " without due process of law," and without " just compensation."

Right Comes from Statute. The exercise of this right is provided by statute, and this must be carefully examined in each case to find what in detail are the proceedings required, and what powers are delegated. The measure of damage in such cases is the difference in value between the lands previous to the taking, and the value of what is left, and this is determined by the commission or, in case of appeal, by a jury; it is found that outside of cities, lands taken for railroads very frequently cost about three times the value of real estate in the neighborhood.

MECHANIC'S LIEN

Definition. When structures had been erected on land, it was sometimes found that the builder failed to pay his men, and a statute was passed to protect the workmen, under what is known as the "mechanic's lien." It seemed that the owner of the land and structure could better protect himself than could the workmen. As a result, Statute Law has been provided so that a workman who has not been paid by his employer, the contractor or builder, may now look for his pay to the building on which he worked, together with the land on which it stands. He has the privilege of bringing suit, in some States within ninety days, and filing his "mechanic's lien" against the structure and the land it occupies, and may after the proper proceedings have it sold to recoup himself.

Materials. In some States and under some circumstances, the man who has furnished materials has a similar lien. The remedy in either case is one provided by statute, and the statute must be strictly observed and followed in all proceedings under it.

BOUNDARIES

Classification. Boundaries are marked by monuments of two sorts, — natural and artificial, by marks existing or placed. Natural monuments are streams, lakes, ponds, shores and beaches, highways and streets, walls, fences, trees, springs, rocks. Artificial monuments are those placed by man to mark a point, a line, a corner. A stone bound, a piece of gas pipe, a small sewer pipe, a pile of stones, a mound of earth, a stake, have all been used. The permanence of a stone bound commends it, as compared with a mound of earth or a stake. Natural boundaries are in general superior to artificial in certainty; for precision, a good artificial bound is superior.

Evidence as to Boundaries. The deed is commonly the best evidence of boundaries of land determined by this deed. In determining boundaries, two principles of the Common Law prevail; first, the intent governs; second, a boundary fixed and determined by monuments will be retained

and not give way to boundaries indicated by distances and courses, in the absence of fraud in setting the monuments.

Certainty and Stability. It is quite as important to have a monument or boundary certain and well established as to have it technically right. Stability and certainty are more important than great technical accuracy or precision. This principle is well recognized as to the Public Land Surveys, by a United States statute providing that corners located in the field remain the correct corners, even if seriously inaccurate, "irrespective of whether they were properly located in the first place or not." It is not in the power of an individual or of any State to correct them. First and last, much poor surveying has been done on the Public Land Surveys, and the rule is a good one.

Defects of Description. Ordinarily, a landowner is not a surveyor and the boundary which he knows, is what can be seen on the ground rather than imaginary lines determined by the survey. Inaccurate or imperfect work is always possible in a description by courses and distances, instruments may be out of order, measuring difficult in rough ground, while errors are always possible; monuments commonly are certain.

Relative Values. The relative values then are normally in this order: natural objects, artificial marks, courses and distances, quantity of land.

Monuments. As a rule then, monuments control against courses and distances, the latter often helping to identify the monuments described and to determine between conflicting monuments; but monuments, when certain, control even where courses and distances show a wide departure from them, and the line from one monument to another is straight if not otherwise described.

Courses and Distances. Courses and distances sometimes give much better results, to an extent to indicate a probable intent to adopt the boundaries indicated by them; in such case they will prevail against monuments. Such instances will probably be rare.

Quantity of Land. In a similar way, the quantity of land is sometimes the primary and clear intent of the deed, and this may then take precedence over courses and distances.

Where no monuments can be found, courses and distances control. In case of a discrepancy between the monuments on the one hand, and a survey by courses and distances on the other, it may be well to consider the possibility of disturbance of the monument, if artificial, whether by accident or by fraud. In one case it was decided that a monument referred to in a deed and placed soon after, was good, but not one set long after by one of the interested parties without notice to the others. In another case it was held that a stake is a frail witness, but when nothing better is found, it may be conclusive as a monument.

Variation of Needle. Where lines were originally run by compass, the variation of the needle when the line was run must be determined; the responsibility of determining the amount of variation rests with the jury, who, however, must decide this from the testimony of the surveyors or others regarding it. In such survey the term "true north" probably means the true north of the needle, the magnetic north, but the intent must be sought.

Lines of Adjoining Tracts. Where lines and corners of an adjoining tract are called for, these govern, if sufficiently established, whether marked by monuments or not, and where nothing to the contrary restrains it, a survey goes to the adjoining tracts. Where no monuments mark either line, and a vacant space exists between two tracts called for as adjacent lands, the vacant space will be apportioned between the two in proportion to their respective interests. Where two surveys overlap, the first surveyed is superior. When there are conflicting descriptions in the same deed, that most favorable to the grantee prevails, in the absence of intent to govern it; the grantor probably wrote the deed, and it will be construed against him.

Replacing Corners of Public Lands. It has been stated that the corner once located by the surveyor in the Public Land Surveys stands as the correct corner; if obliterated in any way, it must be replaced in its original position, and oral evidence is admissible to show where it stood. If it is "lost" because nobody remembers where it stood, it must be replaced by re-running the old line. For this purpose, the field notes of the original survey should be consulted and used to furnish a guide to the new survey, which should endeavor to follow the original line in direction, precision, and in every respect, and in this way replace the lost corner as closely as possible. The manual and circulars of the General Land Office should be consulted carefully as a guide to the procedure to be followed. It is evident that the section corners of the Public Land Surveys will often be also the corner bounds of property.

Waters as Boundaries. Waters are often natural boundaries, and it becomes important to know what water line to use. It appears to be the law that the boundary of tidal waters is the line of ordinary high tide. The shore between high and low tide belongs to the State. This is the law unless modified by statute. For example, a very old statute of Massachusetts provides that the boundary extends to low water mark or to 100 rods from high water mark if this does not extend to low water mark. Where the description is "by," "upon," "to," or "along" the shore the authorities are conflicting as to whether this means high or low water. In the case of small tidal creeks, some courts have ruled in certain cases that the boundary was the thread of the creek. In the case of navigable non-tidal rivers, there is much confusion as to the law in different States.

Non-navigable Streams. With non-navigable streams, the rule is that the boundary extends to the thread of the stream. Deeds sometimes read " to the bank or shore " and sometimes mention a monument on the bank. In all such cases, with various forms of wording, the intent must be looked for, bearing in mind that in general a writing means what it says; a monument is sometimes placed on the bank because it is impracticable to place it in the thread of the stream. Where the natural boundary called for is a natural lake or large pond, the low water line is the limit. With non-navigable lakes or ponds there are many decisions favoring the center or thread of the lake or pond; with artificial lakes, the boundary reaches to the thread, although in the cases of some lakes of great age, they seem to have acquired the low water boundary.

Streets and Highways. With streets and highways, as a rule, the title to the abutting lands extends to the middle of the street. The descriptions in such cases often read " bounded by such a street." Sometimes the description says bounded " by the south side of the street," and under these conditions, the boundary has in many cases been held to be the side of the street, but not in all cases. The decision sometimes rests upon the point of who owned the lands occupied by the street before it came into use as a street. While the title may extend to the middle of the street, the public has an " easement " in the street for all legitimate public uses. If abandoned as a street, the land will ordinarily revert to the abutting owner.

Evidence as to Boundaries. In the case of doubtful or disputed boundaries, the ordinary rules of evidence seem often to be set aside if by this means it be possible to more readily reach the facts, where the conditions are little liable to abuse. In such cases oral evidence is admitted to show where corners stood or to clear up ambiguities in the descriptions of deeds. Declarations of persons deceased are competent if made previous to the suit, if they had special means of knowledge and were then disinterested. Declarations of a man against interest have been admitted not only against himself but also against others claiming under him. General repute is also competent evidence, and ancient maps are accepted as repute. Where a deed refers to another deed or a map, this becomes a part of the deed. The engineer or surveyor engaged upon boundaries in litigation should confer fully with his lawyer on such matters if opportunity offers, as the introduction of such evidence is very technical; in some cases, he must do the best he can before he has a chance to see his lawyer.

Boundary by Prescription. A wall or fence forming the division or boundary line between two pieces of land, if it has been unchanged for the requisite period, ordinarily twenty years, will by prescription become the true boundary, although differing from that called for by deed. Away from cities, farm lands bounded by wall and fences often have no deed

description which determines lines with precision. In such cases these walls and fences, as natural boundaries, fix the lines.

In cities also, even where a tract has been divided into lots and plats filed, the fences which determine lines of occupation or "adverse possession" for the requisite time, are equally the boundaries, by prescription.

Lines of Streets and Highways. The lines of streets and highways as shown by fences or buildings or other natural boundaries, also fix the street lines in the absence of formal previous determination of such lines by the proper town, city, or county authorities, provided they have existed for the necessary period of time. Touching this, however, there often is statute, or ordinance, or other legislative authority, and the surveyor should make himself familiar with any such legislation.

Authority of Municipal Engineers and Surveyors. It should be clearly understood that the official character possessed by a City Engineer or Surveyor or a similar town or county officer, does not commonly give him greater authority to determine lines than is possessed by other competent surveyors. Boundaries are fixed by the rules of Common Law or by statute, and the surveyor can do no more than give expression to these.

Vested Rights. A new street line, fixed by a City Council under its proper powers, may change the line of a street, but if lands of abuttors are taken beyond the fence lines fixing boundaries by prescription, such lands must be paid for; no official action may do away with vested rights.

Evidence of Boundaries by Prescription. Ordinarily the survey shows the lines of fences as existing, and the period for which they have so existed is a matter of fact, depending on evidence. The information given the surveyor may in some cases be incorrect, and may be overcome in case a suit at law should follow. A surveyor may sometimes have old field notes which as evidence would be substantially conclusive. In the absence of this, he should retain memoranda as to the information given him, as this may afterwards be important if available, in case his survey should be disputed.

Securing Stability of Surveys. It is desirable from the standpoint of public policy, looking to certainty and stability, that surveys made by one surveyor should be accepted by later surveyors unless clearly incorrect. In case of dispute, a line may often be satisfactorily settled by conference between surveyors representing conflicting interests. The standing of engineering in a community will properly be advanced by such harmonious action between surveyors. Furthermore, in very many cases the interests of the surveyor's client will be better served by a reasonable adjustment than by an expensive lawsuit.

Descriptions. The engineer or surveyor often is called upon to describe lands for a deed. He should make sure that his descriptions are clear

and that all ambiguity is avoided. If the deed is to convey all the land between two owners, as in case of the right of way for a railroad, it is best to so state, further describing in such manner as will best make the lands certain, and follow with the acreage "as near as may be." On one railroad the description for right of way reads in effect:

"fifty feet on each side of the center line of the National Public Railroad as located and constructed, between the lands of Thomas Jenkins on the North, and Ezra Perkins on the South; the same extending from station 102 + 63.2 to 110 + 27.9 and containing one and seventy-six hundredths acres as near as may be."

The apparent intent is to convey all the lands necessary to the railroad lying between Jenkins' and Perkins' lands; the stations mark the general locality and the acreage shows the amount of land.

CHAPTER VII

CORPORATIONS

Business Associations. In conducting business, associations of persons are not always corporations. Partnerships for such purposes existed before corporations seemed necessary and a consideration of partnership is desirable before considering corporations.

PARTNERSHIP

Definition. When two or more competent parties unite their resources and interests, by agreement with each other to carry on some common legal business and to share in the profits or losses, the relation of partnership results. It is not necessary that all of the resources and interests of a partner shall be engaged in the partnership. A contract is essential, and the intent to form a partnership governs, at least between the partners. Where a corporation is formed in accordance with statutory provisions, the association is not that of partnership.

Agreement. The agreement should be in writing and clearly define the terms of the partnership. The mutual agreements constitute the considerations which are necessary to any contract. The partners need not either contribute equally or share equally in the profits or losses. One member may contribute money or other property, another may contribute only experience. The services rendered may require the entire time of one partner and a portion only of another's. The profits may be divided in any proportion agreed upon. In some partnerships, each member may be allotted a salary, not necessarily equal, and the profits may be divided in proportion to the capital contributed by each. The partnership contract should clearly define all such matters, as well as provide for winding up the partnership affairs in case of dissolution either through death or other contingency. It is worth while to employ a lawyer to pass upon any partnership agreement or perhaps to prepare it.

Property. — Partnership property is that agreed to be devoted to partnership purposes. It ordinarily includes: 1. The capital contributed

by the partners. 2. Property otherwise acquired in partnership transactions. 3. Good-will.

Capital is not necessarily in money. It may be in any form of property. Real property, however, may not be acquired in the firm name. The legal title may be held by the individuals comprising the firm. Either real or personal property may, by agreement, be vested in a member of the firm for the benefit of the partnership, provided this be not to the disadvantage of third parties; the firm must be solvent at the time.

Good-Will. Good-will is substantially the capitalized value of the habit or inclination of customers and their acquaintances to deal with a going concern. The advantages of location, the necessity to use certain qualities of goods, and many other elements enter into it. A monopoly of product, or peculiar opportunity, may underlie this good-will. While it is intangible and cannot well be sold separately, in selling partnership property, or in adjusting values in dissolving a firm, considerable value may properly be assigned to it. The reputation gained under a firm name may be a part or even the whole of good-will.

Firm Name. The agreement should state the name or title under which the partnership or "firm" shall be carried on. It may be under any name desired provided this does not interfere with the rights of others acquired by the use of the same name or another practically the same. There are sometimes statutory provisions regulating this. Partnership contracts and transactions should be in the firm name. A suit at law, however, will be in the name of the members.

Partners, Principals and Agents. Partners are both principals and agents. Each partner is responsible as principal for all liabilities of the partnership. Each partner is also the agent of the others in partnership dealings; admissions or representations of one member bind the firm. The act of one partner clearly outside the firm's sphere is not binding on the firm, but may be ratified by the other members. In a trading or commercial partnership one partner may purchase and sell goods, receive payment and give receipt, and may compound claims. He may insure firm property, and engage servants and agents. He may draw checks or indorse them in the course of business, or take any necessary action with relation to negotiable instruments. For all business transactions either partner signs the firm name.

Fiduciary Character. — Partners in a firm stand in a fiduciary relation to each other. No one of them may make private gains at the expense of the others on matters in any way related to the business. No partner may receive special compensation except as agreed. It is customary for members to draw upon firm funds from time to time in place of salary, for household or other expenses; to provide for unequal drawing, the

contract should cover interest on advances or on undivided profits. If a member contributes real estate to the partnership property he retains the legal title and holds it as trustee. In a similar way on the death of a partner, the other members hold the firm property in trust until all the property is sold or satisfactorily apportioned. Capital should not be increased or diminished except by agreement. Some firms allow members to leave their profits to draw interest or a share of the profits; others prohibit this, partly because a large accumulation of this sort may become a serious matter to handle in case of the death of such a member. Proper accounts should be kept to which all partners should have free access. In firm meetings the majority rules, but the acts of this majority must be in good faith.

Liability to Third Persons. — One of the most important points in the law touching partnerships is that each partner is liable to third persons to the full amount of all debts of the firm. He is liable not merely to the amount he has invested in the partnership, but to the extent of his entire financial ability. Another member of the firm who has contracted the debt has done so as agent of all the others, each of whom is fully bound. The creditor is not restricted primarily to firm property; he may pursue his remedy against an individual member and may reach his personal property. The firm member may, however, recoup himself by proper action in Equity against his partners if they own anything. The firm is liable for the torts of a member while acting as agent of the firm.

Limited Partnerships. The statutes of some States allow "limited" partnerships, in which at least one member must be a general partner and have general liability while the liability of others is limited to the amounts they have paid into the business. Notice, by filing the partnership agreement, is commonly required as suitable protection to third parties as well as to the limited partner. Similarly there are sometimes special partners, unknown, dormant, secret partners, whose connection with the firm is quite unknown to outsiders and who assume no liability. To the contrary, any ostensible partner who has the appearance of a firm member will be held liable to third parties whether he has exercised any voice in management or not.

Private Debts. The private debts of a member are not a liability of the firm; the most a creditor can do is to reach the interest of such member in the firm. Partnership property must be devoted first to the payment of firm debts, and creditors of the firm will take precedence as to this over creditors of individual partners.

Dissolution. Dissolution of a partnership may come about through agreement, the death of a partner, or the decree of a court. The winding up of the partnership may be provided for by statute. It may be effected

by the surviving partners continuing in control as trustees. Sometimes a receiver is appointed. Sometimes, without a receiver, an accounting is ordered by the court.

Proof of Partnership. The existence of the relation of partnership is sometimes in question, perhaps between the immediate parties, perhaps on the part of some third person. Common ownership does not assure the relation, nor does the sharing of profits always do so, but an agreement to share profits is *prima facie* evidence of partnership. Engaging in an enterprise as co-owners, where profits are to be shared does constitute partnership. To prove partnership a stricter rule prevails when the question arises between partners than where it arises between partners on one side and third parties on the other. General reputation may readily serve in the latter case. There is involved a mixed question of law and fact; what constitutes partnership is law; the facts in the case, if in dispute, are for the jury. The intent may often be important. Any arrangement of association entered into by an engineer should be made clear, by writing preferably; but in any case there should be sufficient evidence available to clearly determine its character.

CORPORATIONS

Need for Corporations. When the steam engine for manufacturing and the locomotive for transportation were well established, there became apparent a need for large investments in single enterprises. The private fortunes of a few wealthy men combined in a partnership were hardly sufficient, while there was considerable capital in moderate sums seeking investment, provided the element of risk be reduced to a minimum. The corporation with its limited liability met the case very well and rapidly assumed importance in the business world.

Corporation and Partnership. The most important distinction between a corporation and a partnership is the limited liability of the members of a corporation. In a partnership every member is financially responsible for all the debts of the firm. In nearly all corporations (National Banks are a notable exception) a stockholder's risk is limited to the par value of the stock he holds, part or all of which may have been paid in, or in some cases only to the extent of the money actually paid in.

Advantages. Additional attractive features of the corporation are the fact that on the death of a stockholder, his stock is transferred to another, with no effect otherwise on the corporation; in a partnership the death of a member ordinarily works dissolution of the partnership, requiring financial adjustments often burdensome to the surviving partners. In a similar way a dissatisfied stockholder in a corporation may withdraw with no

effect on the business, provided only he can find a purchaser for his stock, an action commonly possible in large corporations, but not always in small. In a partnership, each member has power to act independently of the others; in a corporation, the directors cannot act individually, they act only as a board, and better unity of action is secured.

How Created. A corporation cannot be created by mere agreement between its members, as can a partnership; it is an artificial body, deriving its existence from a charter granted usually by or under a statute passed by the State legislature. In this country the State is the sovereign; the federal government possesses only such powers as are found in the Constitution of the United States, which is the creation of the States acting at first in convention, together with such other powers as are necessary for the exercise of those expressly conferred. While the federal government may, and does grant charters to corporations for certain purposes, yet in most cases the charter is secured from the State within which the corporation is organized.

Special Charters. Sometimes the corporation is created under a special charter, that is, by a special act or statute; in some States, however, the constitution specifically forbids this. More commonly, the corporation is organized under some general statute providing the procedure to be followed to secure a charter, such as: holding a "first meeting," drawing up the "articles of incorporation," filing these, and complying with other required formalities, following which a formal certificate of incorporation is issued with the signature of the Secretary of State or other designated official.

Kinds of Corporations. Corporations differ in their character and purposes; they may be divided into classes. Among the important classes of interest here are: business corporations, covering various kinds of manufacturing, mining, financial, insurance, or general mercantile business; municipal corporations, as cities, towns, counties, school districts; public service corporations, such as railroad, water, light, telegraph, telephone companies; and those for educational, social, and charitable purposes.

In addition to actual corporations, there are joint stock companies which issue transferable shares, but which are not organized as corporations. The legal status of such companies seems to be that they are in effect partnerships.

Connecticut Statute. Where a charter for other than a municipal corporation is to be secured, the following statutes of Connecticut furnish a fair sample of one general form of procedure. Changes have at times been made in the phraseology and arrangement shown here, but the general scheme for incorporation is well exhibited.

Formation. Any three or more persons may associate to form a corporation for the transaction of any lawful business, except that of a bank, savings bank, trust company, building and loan association, insurance company, surety or indemnity company, steam railroad or street railway company, telegraph company, gas, electric light, or water company, or any company which shall require the right to take and condemn lands or to occupy the public highways of this state. Nothing herein shall prohibit corporations organized under the provisions of this chapter from constructing, maintaining, and operating railroads outside of this state. Every corporation formed under the provisions of this chapter shall be located in some town in this state.

Certificate of Incorporation. The persons so associated shall file a certificate, signed and sworn to by all of them, setting forth: (1) the name of the corporation, which shall be such as to distinguish it from any other corporation chartered by or organized under the laws of this state, and from any other corporation engaged in the same business or promoting or carrying out the same purposes in this state, and every such name shall begin with "The" and end with "Corporation," or have the word "Incorporated" immediately under or after the name; (2) the name of the town in this state in which the corporation is to be located; (3) the nature of the business to be transacted, or the purposes to be promoted or carried out; (4) the amount of the authorized capital stock of the corporation, which shall not be less than two thousand dollars, the number of shares into which the same is divided, and the par value of each share, which shall not be less than twenty-five dollars, and, if there be more than one class of stock, a description of the different classes, with the terms on which they are respectively created; (5) the period, if any, limited for the duration of the corporation.

Certificate may Contain Additional Provisions. The certificate of incorporation may also contain any lawful provisions which the incorporators may choose to insert, for the regulation of the business of the corporation or for defining and regulating the powers of the corporation, its officers, directors, and stockholders, or any class of stockholders.

Evidence of Corporate Existence. Upon the approval of the certificate of incorporation by the secretary of state, corporate existence shall begin. A copy of such certificate and approval, duly certified by the secretary of state, under his hand and the seal of the state, shall be *prima facie* evidence of the legal existence of any such corporation.

Power of Incorporators. After the approval of the certificate of incorporation as aforesaid, and until the directors are elected, the incorporators shall have charge of the affairs of the corporation, and may take such steps as are necessary or proper to obtain subscriptions to stock.

Call of First Meeting; Waiver of Notice. After fifty per cent. of the authorized capital stock has been subscribed for, a majority of the incorporators shall call the first meeting of the corporation, at such time and place as they may designate, by a notice published twice, at least seven days before the time designated, in a newspaper of this state having a circulation in the town in which the corporation is located; but such notice may be waived by a writing signed by all the subscribers to the capital stock and a majority of the incorporators, specifying the time and place for said meeting, which waiver shall be recorded at length upon the record of the corporation.

Organization; Adoption of By-Laws. At such meeting including adjournments thereof, the subscribers for stock shall perfect an organization, by the choice

of a temporary clerk and by the election by ballot of three or more directors who are subscribers for the stock, and shall adopt by-laws for the regulation of the affairs of the corporation.

Commencement of Business; Certificate of Organization. No such corporation shall commence business until at least fifty per cent. of its authorized capital stock has been subscribed for by *bona fide* subscribers; nor until at least twenty per cent. of such subscriptions has been paid in, which payments shall in every case aggregate at least one thousand dollars; nor until its directors and officers have been duly elected and its by-laws adopted; nor until a majority of its directors have caused to be filed a certificate of organization, setting forth: (1) the amount of the authorized capital stock, the number of shares into which it is divided, and the par value of such shares; (2) the amount of each class of stock subscribed for; (3) the amount paid thereon in cash; (4) the amount paid thereon in property other than cash, and the character of such property; (5) the amount paid on each share of stock which is not paid for in full; (6) the name, residence, and address of each of the original subscribers, with the number and class of shares subscribed for by each; (7) that the directors and officers of the corporation have been duly elected, and that its by-laws have been adopted; (8) the name, residence, and post-office address of each of its officers and directors. A copy of such certificate, duly approved by the secretary of state and certified under his hand and the seal of the state, shall be *prima facie* evidence that such corporation has been duly organized and is duly authorized to exercise all of its corporate powers.

Directors; Term; Quorum; Report. The property and affairs of every such corporation shall be managed by three or more directors, who shall be stockholders, and shall be chosen annually by the stockholders, at such time and place as may be provided by the by-laws. The directors shall hold office for one year and until others are chosen and qualified in their stead, and may fill any vacancy in their board for the unexpired portion of the term. A majority of the directors shall constitute a quorum for the transaction of business. At least once in each year they shall make a full and detailed report of the financial condition of the corporation to its stockholders, which report shall be filed with the treasurer of the corporation and be subject to the inspection of the stockholders at all reasonable times.

Officers. The directors shall choose from among their own number a president and shall appoint a treasurer, a secretary and such other officers as the by-laws shall prescribe, who shall hold their respective offices until the next annual meeting and until others are chosen in their stead. The same person may fill the office of president and treasurer.

Corporation Organized. When the formalities above set forth have been complied with, the corporation is then organized and in possession of its charter. Corporations for educational, social, charitable purposes, in general require no capital stock, and the statutes provide that the certificate for these need make no mention of that feature. Special additional requirements are made for railroad, for insurance, for savings bank corporations, and the statutes governing each business must be critically examined and literally followed.

Massachusetts Statute. In Massachusetts the requirements in detail differ somewhat from those of Connecticut, and there is also an important

difference in the order of procedure, which the following extracts from the statutes illustrate:

SECTION 7. Three or more persons may associate themselves by a written agreement of association with the intention of forming a corporation under general laws for any lawful purpose which is not excluded by the provisions of section one to buy and sell real estate or to distil or manufacture intoxicating liquors.

SECTION 8. The agreement of association shall state: —

(*a*) That the subscribers thereto associate themselves with the intention of forming a corporation.

(*b*) The corporate name assumed.

(*c*) The location of the principal office of the corporation in the commonwealth, and elsewhere in the case of corporations organized to do business wholly outside the commonwealth.

(*d*) The purposes for which the corporation is formed and the nature of the business to be transacted.

(*e*) The total amount of the capital stock of the corporation, which shall not be less than one thousand dollars, to be authorized; the par value of the shares, which shall not be less than five dollars; the number of shares into which the capital stock is to be divided, and the restrictions, if any, imposed upon their transfer; and, if there are to be two or more classes of stock, a description of the different classes and a statement of the terms on which they are to be created and of the method of voting thereon.

(*f*) Any other provisions not inconsistent with law for the conduct and regulation of the business of the corporation, for its voluntary dissolution, or for limiting, defining or regulating the powers of the corporation, or of its directors or stockholders, or any class of stockholders.

(*g*) The subscriber or subscribers by whom the first meeting of the incorporators shall be called.

(*h*) The names and residences of the incorporators and the amount of the stock subscribed for by each.

SECTION 9. The first meeting of the incorporators of a corporation created by special law shall, unless such law otherwise provides, be called by a notice signed by a majority of the persons named in the act of incorporation; and the first meeting of the incorporators of a corporation organized under general laws shall be called by a notice signed either by such subscriber to the agreement of association as may be designated therein or by a majority of the subscribers to such agreement; and such notice shall state the time, place and purposes of the meeting. A copy of such notice shall, seven days at least before the day appointed for the meeting, be given to each incorporator or left at his residence or usual place of business, or deposited in the post office, postage prepaid, and addressed to him at his residence or usual place of business, and another copy thereof, and an affidavit of one of the signers that the notice has been duly served, shall be recorded with the records of the corporation. If all of the incorporators shall in writing, indorsed upon the agreement of association, or, in the case of a corporation created by special law, upon the charter or a certified copy thereof, waive such notice and fix the time and place of the meeting, no notice shall be required.

SECTION 10. At such first meeting, or at any adjournment thereof, the incorporators shall organize by the choice, by ballot, of a temporary clerk, who shall be sworn, by the adoption of by-laws and by the election in such manner as the

by-laws may determine of directors, of a treasurer, of a clerk and of such other officers as the by-laws may prescribe. The temporary clerk shall make and attest a record of the proceedings until the clerk has been chosen and sworn, including a record of such choice and qualification.

SECTION 11. A majority of the directors who are elected at such first meeting shall forthwith make, sign and make oath to articles setting forth:—

(*a*) A true copy of the agreement of association and the name of the subscribers thereto, or of the act of incorporation, as the case may be.

(*b*) The date of the first meeting and of the successive adjournments thereof, if any.

(*c*) The amount of capital stock then to be issued; the amount thereof to be paid for in full in cash; the amount thereof to be paid for in cash by instalments and the instalment to be paid before the corporation commences business; and the amount thereof to be paid for in property. If such property consists in any part of real estate, its location, area and the amount of stock to be issued therefor shall be stated; if any part of such property is personal, it shall be described in such detail as the commissioner of corporations may require, and the amount of stock to be issued therefor stated. If any part of the capital stock is issued for services or expenses, the nature of such services or expenses and the amount of stock which is issued therefor shall be clearly stated.

(*d*) The name, residence and post office address of each of the officers of the corporation.

The directors who sign such articles shall be jointly and severally liable to any stockholder of the corporation for actual damages caused by any statement therein which is false and which they know to be false.

SECTION 12. The articles of organization and the record of the first meeting of the incorporators shall be submitted to the commissioner of corporations, who shall examine them and who may require such amendment thereof or such additional information as he may consider necessary. If he finds that the articles conform to the provisions of the preceding sections relative to the organization of the corporation, he shall so certify and indorse his approval thereon. Thereupon, the articles shall, upon payment of the fee hereinafter provided, be filed in the office of the secretary of the commonwealth, who shall cause them and the indorsement thereon to be recorded, and, except in the case of a corporation created by special law, shall thereupon issue a certificate of incorporation in the following form:—

[which need not be stated here]

The secretary shall sign the certificate of incorporation and cause the great seal of the commonwealth to be thereto affixed, and such certificate shall have the force and effect of a special charter. The existence of every corporation which is not created by special law shall begin upon the filing of the articles of organization in the office of the secretary of the commonwealth. The secretary of the commonwealth shall also cause a record of the certificate of incorporation to be made, and such certificate, or such record, or a certified copy thereof, shall be conclusive evidence of the existence of such corporation.

SECTION 17. The business of every corporation shall be managed and conducted by a president, a board of not less than three directors, a clerk, a treasurer and such other officers and such agents as the corporation by its by-laws shall authorize.

SECTION 18. The directors, the treasurer, the clerk and such other officers as the by-laws may prescribe shall be elected annually by and from the board of directors. Every director, unless the by-laws otherwise provide, shall be a stockholder.

SECTION 19. The board of directors may exercise all of the powers of the corporation, except such as are conferred by law, or by the by-laws of the corporation, upon the stockholders. A corporation may, by its by-laws, provide for an executive committee to be elected from and by its board of directors. To such committee may be delegated the management of the current and ordinary business of the corporation, and such other duties as the by-laws may prescribe.

SECTION 20. There shall be an annual meeting of the stockholders and the time and place of holding it, and the manner of conducting it, shall be fixed by the by-laws.

First Meeting. In Massachusetts, the "first meeting" is held previous to filing the articles of incorporation, in Connecticut after such filing. The detail of procedure also is different. In other States, the procedure, while similar to one or the other examples shown above, will nevertheless differ enough so that a critical examination of the statutes is necessary for any State in which incorporation is to be effected.

The minutes of the "first meeting" and the records of all later meetings of the corporation whether regular or special should show all formal and necessary acts, and in a form which will be legally conclusive.

Advance Preparation for Meeting. It is desirable that all the business necessary to the first meeting, or any formal meetings necessary to incorporation, shall be prepared in advance, including the making of all motions that are essential. Not only is time thus saved but greater certainty of action is secured. The lawyer, if any, who is attending to other details should attend and direct the meeting.

It has been held in some States that one of the incorporators may not act as notary and take the acknowledgment of the others. In other States this has been done without objection from the State officials.

Ordinarily printed blanks can be had which much facilitate the framing of the formal documents.

By-Laws. The preparation of the by-laws is of great importance, and a book of forms and the by-laws of similar corporations will be of great value, but should be supplemented by careful and thoughtful consideration as to the requirements of the corporation to be formed.

Form of Charter. In some States a formal charter is issued under the great seal of the State; in others the articles of incorporation are presented, certified, and filed, and constitute the charter; a duly certified copy is then evidence of the existence of the corporation.

Objects. The objects of the corporation must be set forth in the articles of incorporation. In some cases it is required, and in general it is

desirable, to specify the statute under which organization is sought. Sometimes there is a choice as to the statute under which organization shall be effected, and careful deliberation may sometimes be well worth while. The objects stated should be sufficiently comprehensive so that some later desired action on the part of the corporation will not be found to lie outside the scope of corporate powers as defined by the objects specified.

Two Policies as to Objects. There are two policies practiced in setting forth the objects. One is to state them in very general but comprehensive terms; implied powers are then added by law. Another is to be very specific; the danger in this is that the specifying of a large number of objects may have the effect of precluding any not specified. When general terms are used, a clause like the following is sometimes added:

> In furtherance of, and not in limitation of, the objects and purposes hereinabove stated, and the general powers conferred by law, it is hereby expressly provided that this corporation shall have the following powers; that is to say:

Powers. The powers of the corporation rest not only upon the articles of incorporation, but upon such parts of the State Constitution and such parts of the statutes as are applicable both as to extent and limitations, together with such powers as the Common Law adds as implied and necessary.

The powers are then: 1. Those expressly given. 2. Impliedly as incidental to express powers. 3. Impliedly as necessary to corporate existence.

Implied Powers. The implied powers added by law are not merely those necessary and indispensable, but also those appropriate, convenient, and suitable for the purposes set forth. The corporation has thus powers to contract, grant, receive, sue and be sued; to purchase, hold, lease, or sell lands; to have a seal; to make by-laws and amend them; to borrow money; to execute a bond or a note, also to compromise claims, and submit disputes to arbitration; to endorse for another for accommodation; to draw, endorse, or accept bills of exchange; to make by-laws; to maintain continuous succession during its period of existence; as well as other powers not mentioned here. There is a presumption that contracts of a corporation are within its powers; if this is questioned, the burden of proof is on him who objects.

Powers from Statute. The statute often specifies many powers which the Common Law had already recognized; but the statute often confers others which the corporation would not have unless expressly granted. The following powers of business corporations are definitely specified in the statutes of Massachusetts:

Every corporation which is subject to the provisions of this act shall have the following powers and privileges and shall be subject to the following liabilities:

(*a*) To have perpetual succession in its corporate name, unless a period for its duration is limited by special law.

(*b*) To sue or be sued in its corporate name, and to prosecute or defend to final judgment and execution or decree in any court of law or equity.

(*c*) To have a capital stock to such an amount as may be fixed in its agreement of association or articles of organization or of amendment as hereinafter provided.

(*d*) To have a corporate seal, which it may alter at pleasure.

(*e*) To elect all necessary officers, fix their compensation and define their duties.

(*f*) To hold, purchase, convey, mortgage or lease within or without this commonwealth such real or personal property as the purposes of the corporation may require.

(*g*) To make contracts, incur liabilities and borrow money on its credit and for its use.

(*h*) To make by-laws not inconsistent with the laws of this commonwealth for regulating its government and for the administration of its affairs as hereinafter provided.

(*i*) To be dissolved or to have its affairs wound up in the manner hereinafter provided.

Where to Incorporate. In what State shall the corporation be organized? With the ordinary mercantile corporation, the answer is to organize as a domestic corporation in the State where the business headquarters are and where most of the business is to be transacted. A corporation doing business in a State other than that in which it is incorporated, is called a foreign corporation, and the laws in one way or another are likely to be less favorable to a foreign corporation. A State may, although it seldom does, pass laws to shut out a foreign corporation altogether, or by drastic laws reach the same result by indirection.

Conditions Influencing Place. With railroad companies or with large corporations of various sorts doing much business in several States, the case is less simple. The fees for organization and for taxation are not alike in all States; other conditions of organization or of operation are more burdensome in some States than in others. On the other hand, the conservatism of the laws of certain States tends to give a high standing to a corporation organized therein, which has some effect towards making the financing easier. In the case of long lines of railroads, separate corporations are often organized in different States, and operated under a single management. For the larger matters of organization, the services of a lawyer are desirable or necessary, and in most cases are readily available.

Charter a Contract. The charter is recognized as a contract between the State and the corporation. A general statute may be considered an invitation; an offer is made when the articles of incorporation are filed, and when these are accepted by the proper State official in accordance

with the statute, there is a complete contract; neither the corporation nor the State may violate it, since the Constitution of the United States provides that "no State shall pass any law impairing the obligations of contracts."

Amendment of Charter. In older charters there are sometimes found provisions which later seem unsatisfactory to the State, but amendment would constitute an impairment of the contract. A remedy is sometimes found in such cases when a corporation asks for further legislation in its behalf; the State is then in position to "trade," and exact some desirable amendment as the price of the new legislation. Statutes or special charters nowadays commonly contain a provision reserving to the State the right to amend.

Securities; Bonds and Stock. A corporation has an inherent, an implied power to contract debts. This carries with it the power to give security and in this way to issue bonds. When a man builds a house he often pays for it only in part in cash and gives a mortgage for a part; sometimes he pays in cash all he can raise and gives a mortgage for the balance; sometimes he borrows all he can and pays cash only for the balance. A corporation is similarly financed, oftentimes in part from the sale of bonds, and in part from the money paid in to the capital stock of the corporation by the subscribers who thus become stockholders, or else paid by later stockholders who become such by purchasing treasury stock directly from the corporation.

Bonds. The bonds are frequently, but not always, mortgage bonds. The ordinary mercantile corporations seldom issue bonds, and some of the early railroads issued no bonds for many years. Manufacturing and railroad corporations, and the so called trusts, some of them mercantile, find it convenient to issue bonds. Whether to provide the money needed mostly from the sale of bonds or by subscription or sale of stock is a financial rather than a legal question.

Bondholders' Interest. Bonds, which constitute a first claim on the property of a corporation, give better security than stock, and can be sold to advantage while paying a low rate of interest. With good earnings the stockholders may thus receive a larger percentage of profit on the smaller amount of stock required. On the other hand, if the earnings are unsatisfactory, the interest on the bonds, as it becomes due, must necessarily be paid, and a failure to pay interest usually means a receivership and perhaps foreclosure of the mortgage, which may result in a total loss to the stockholders; whereas if there were no bonds, meagre earnings would result only in a loss of dividends on the stock, which need not be paid if unearned, and would not imperil the property so long as the earnings covered expenses of operation. It is a matter of good financial judg-

ment to determine, in each case, what proportion of bonds and stock to issue.

Special Information Required for Incorporation. In the case of railroads and many other corporations, it is sometimes provided by law that the articles of incorporation shall state: (*a*) the total amount of its capital stock; (*b*) the par value of a share; (*c*) the amount of stock subscribed and by whom; (*d*) the amount actually paid in; and, sometimes also, (*e*) if more than one class of stock (common stock), the name, quality, and privileges of any additional classes of stock. In this matter, also, the specific requirements of the statute must be followed; these differ in different States, as well as for different kinds of corporations in the same State.

Amount of Capital Stock. In some States there are also requirements as to: (*a*) the amount of capital stock already paid in at the time of the "first meeting"; (*b*) the percentage of the capital stock already subscribed; (*c*) the percentage of the capital stock already paid in; or (*d*) the percentage of the capital stock already subscribed which has been paid in. Sometimes such a requirement must be fulfilled before the incorporation is effected. In other cases, it must be fulfilled before starting business.

Stock: How Acquired. Stock may be acquired in several ways; by subscription at the start, by later purchase from the corporation, or by transfer from some other stockholder. Although transfer of stock is allowable, certificates of stock are held not to be properly "negotiable instruments." A stock certificate is a written acknowledgment of the interest of the stockholder, and a transfer of stock must be registered on the books of the company.

Subscriptions: Privileges and Responsibilities. The subscriber, before incorporation, not only secures some privileges, but he also incurs legal responsibilities. In general, a subscriber must pay his subscription. In some States the subscription stands as an offer which may be withdrawn before the charter is secured, but which is accepted and becomes a contract the moment the charter is secured; in other States the subscription, once made, cannot be withdrawn unless for fraud or similar adequate cause. Sometimes subscriptions are conditional, but commonly not; sometimes, or in some States, there is an implied condition that all the shares shall be subscribed for unless otherwise specified; but a subscriber may waive this if he sees fit. No general rule of universal application can be laid down here as to the responsibility of the subscriber.

Subscription Agreements. In some States a formal subscription agreement is necessary. Whether necessary or not, an agreement "in consideration of the subscription of others hereto, I promise" forms a contract which probably would be enforced.

The contract of the subscriber is with the corporation and not with the other subscribers; it must be enforced through the corporation, and it has been held that the subscriptions are valid commonly not only by virtue of the statute, but also as a matter of Common Law.

Full Paid Stock. In some States it is unlawful to issue stock to stockholders except on payment of its par value. In other States corporations of certain classes may issue stock on payment of less than par value under some circumstances. When par value has been paid, the stock is non-assessable. National Banks are a notable exception to this rule; holders of full paid stock of National Banks are liable to an additional assessment equal to the par value if this be required to pay depositors or other creditors. In some States a similar rule prevails as to all corporations.

Additional Assessment. Where stock has not been paid in full, the stockholder, in most States, may be called upon for additional assessments up to a point where his total payments shall equal the par value of the stock. His liability is primarily to the corporation, although eventually to creditors in case the assets should be insufficient; but in many States this is true only in case of insolvency or its substantial equivalent. The liability of stockholders has been held sometimes to be jointly and severally, sometimes proportionally.

Where a corporation is clearly solvent and in successful operation, stocks not fully paid for will not be assessed because there is no occasion for such action. The statutes relating to corporations have been changed frequently and vary so much in different States that a careful reading of statutes, as well as an examination of decisions, is necessary to ascertain what are the liabilities of stockholders.

Special Liabilities of Stockholders. In some States the stockholder is liable beyond the full paid stock for the wages of employees of the corporation. He is also liable for any refund which has impaired the security of creditors. In some cases there has been a limitation on the period for enforcing the liability of stockholders. In the case of transfer of stock, the rule as to the liability of transferor and transferee is variable. In California, stockholders are liable for all debts of a corporation.

Stock Issued other than for Cash. While stock is commonly issued for cash, the law countenances its issue for labor or other services or for property if its purchase would not be "*ultra vires*," a term to be explained later. In some cases practically the only way in which a railroad can be constructed is by paying the contractor in the securities of the corporation. The measure of value of services or property must be, in general, the equivalent of reasonable value, or just valuation, but in a very few States an agreed value, or an arbitrary value fixed, is held to be legal; and in the absence of fraud, the judgment of the board of directors as to value is con-

clusive. Stock thus issued other than for cash has been held to be non-assessable.

Stock as Bonus. In some States, in payment of a debt when the credit of the company is poor, payment may be made in bonds with a bonus of common stock, provided the market value of bonds and stock be not less than the par value of the bonds. It is not uncommon, too, to finance corporations by issuing a block something as follows: bond, $1000; 8 shares preferred stock; 4 shares common stock; the selling price for the block being perhaps $1100.

Preferred Stock. Preferred stock is sometimes issued in addition to common stock; the word " preferred " means little or nothing unless the preference is explained. Ordinarily such stock is specified to be preferred, or to have priority, both as to assets and dividends; the provision then is that the preferred stock shall have first claim on assets in case of liquidation, and shall receive its full specified dividend before any dividend is paid on the common stock. Preferred stock usually has a specified rate of dividend; if " cumulative " preferred stock, then in case a dividend is omitted in any year, it shall be paid later whenever money is earned in excess of fixed charges and current preferred requirements, and before any dividends can be paid on the common stock. Unless the quality of preference is in some way explained or specified, the use of the word appears to have no effect.

Unless the statutes authorize the issue of preferred stock, its legality is doubtful. When the statutes authorize it, it is not altogether clear whether the corporation has a right to issue it after the common stock is subscribed, but the weight of authority favors its legality. It is often issued when reorganization of a railroad becomes necessary, sometimes in place of bonds upon which it was found difficult or impossible to pay interest, and which were retired in favor of preferred stock.

Stock of Other Corporations. Although at Common Law a corporation could not in general hold stock in other corporations, yet in most States this is now authorized. This seems almost necessary in the case of insurance companies with much money to invest, and also in the case of trust companies for the investment of trust funds. At present it is not uncommon for " holding companies " to own the stocks of several companies operating in a single line of corporate work, and this seems not unlawful now unless it is a combination in restraint of trade, which is unlawful not only under the Common Law, but often directly under Statute Law also.

The federal anti-trust law, the so-called Sherman Anti-Trust Law, not only defines the offence, but also attaches a penalty which includes possible imprisonment. This law is not on its face directed at corporations, but most action under it is likely to be against large corporations, and its terms

should be understood by anyone forming a corporation which has at all the character of a combination or trust.

Sherman Law. The federal anti-trust law, the Sherman Law, is directed against any combinations or operations in restraint of trade. It affirms the Common Law principle as to restraint of trade, causes it to apply to interstate transactions, thus curing difficulties arising from the inability of a State to exercise sufficient jurisdiction and control of many cases. In addition to defining the offence, the act also imposes a penalty of fine or imprisonment or both. It also provides for an action in Equity to enjoin operations declared illegal by this act. It took some time for the Supreme Court of the United States to determine the true meaning and application to the act, but this was finally accomplished under what has been denominated "the light of reason." The dissolution of the Standard Oil Trust and the Tobacco Trust were accomplished under this act. With the fixing of this meaning and application it is expected that it will be possible to enforce the penalty of imprisonment, which had seemed not to be possible while the meaning remained somewhat vague. The certainty which the law aims to secure is temporarily disturbed with relation to this act by the later legislation known as the Clayton Act and The Federal Trade Commission Law enacted late in 1914; new Statute Law of this sort is likely to bring about new rulings and definitions of the law from the Supreme Court, as the laws overlap.

Clayton Act. The Clayton Act is specifically an anti-trust act. It prohibits discrimination in price between individuals "where the effect of such discrimination may be to substantially lessen competition or tend to create a monopoly." It further prohibits making contracts which specify that the purchaser shall not use or deal in the goods of a competitor if the effect is to lessen competition. The act further provides, in the case of banks and certain other corporations, that any individual shall not hold positions of director or important officer in more than one such corporation, where both corporations are naturally competitors; this is known as the "interlocking directorate" provision.

Federal Trade Commission. The Federal Trade Commission is a body appointed under United States laws to investigate and remedy infractions of the laws as well as any acts suppressing competition. Provision is made so that it may act less formally than a court of law in such investigations.

A careful reading of all these acts and of the decisions rendered will be necessary for a proper understanding of the laws, and there may then remain some uncertainty as to their scope and application until there has been time for Supreme Court decisions to bring about the stability which business needs and which the law seeks to secure.

Another federal law, the Interstate Commerce Act, deals not only with railroad rates but also with safety appliances for railroads, thus giving a new expression of federal powers; the same is true of the federal Workmen's Compensation Act, which however is not confined in its action to corporations, although in practice few personal employers are interested.

Amount of Capital Stock. As to the amount of capital stock, it should be understood that the value of property is mainly determined by its earnings. With corporations having public service qualities, a high rate of dividend return, if the capital stock is small, will tend to cause dissatisfaction on the part of the public, and perhaps bring about adverse legislation; over-capitalization on the other hand results in higher taxes under the laws of many States. It is not altogether uncommon with corporations for preferred stock to be issued to the amount of the physical value of the property, and common stock to capitalize the additional or surplus earnings, representing the value of the franchise or good-will of the company; such stock is sometimes called watered stock.

Capital; Capital Stock; Capitalization. In considering the financial side of the corporation it may be proper to distinguish between: (*a*) capital, the property value of the corporation, its assets, or the fund with which it does business; (*b*) capital stock, the amount of stock authorized; (*c*) capitalization, which includes bonds as well as stock.

Promoters. In the formation of a corporation, an important person sometimes is the "promoter," whose function it is to effect the incorporation and organization of a company; who brings together the persons who become interested in the enterprise; who aids in procuring subscriptions and sets in motion the machinery which leads to the formation of the company itself. His position differs much from that of the subscriber.

While a contract comes into force between subscribers and corporation the moment the charter is secured, on the basis of a continuing offer then accepted, it is held in most States that there is no such contract between a promoter and the corporation. The promoter's services were performed before there was any corporation to make either an express or an implied contract to pay the expenses of promotion.

Payment to Promoters. If the promoter expects payment for his services, he should have a contract with the subscribers or with some individual or individuals, with proper assurance that enough money is available. The agreement should be in writing; for, if the subscriber he dealt with should die, the other subscribers might be inclined to dodge responsibility if opportunity offered. While a promoter has no claim that he can enforce against the corporation, on the other hand there appears to be no legal obstacle to the payment by the corporation, at its pleasure, of expenses connected with organization, and these may properly include

any allowances for promotion. It is not improbable that mining engineers may have the opportunity or find it necessary to act as promoters. If the work of the promoter is properly conducted there is no reason why stigma should attach.

Secret Profits of Promoters. It is held that promoters stand in a fiduciary relation which prevents them from receiving any secret profits. A promoter, therefore, cannot purchase property in the interests of a corporation and sell at an advance, at least unless all others interested are notified and assent; neither can he receive a bonus from the seller of the property. Sometimes, however, the property is his own, and was his own before he undertook the promotion; his position then is not equivocal and he may properly bargain and agree with the corporation for its purchase. It is probable that in many cases of promotion some abuse creeps in. The promoter in any important transactions ought to have the advice of a good lawyer to make sure that his dealings with the subscribers and corporation are clearly legal in form as well as in substance. This is especially important if he desires not only to sell property, but also to retain a large and perhaps controlling interest in the company, as often happens.

Stock in Hands of Trustees. In some cases, an inventor with little funds, or a miner, financially weak, desires to form a company to finance his enterprise, where neither he nor the capitalists interested may be willing that the other party shall exercise a controlling interest. In such case, the parties may agree to place the stock in the hands of trustees in whom both interests have confidence.

Board of Directors. While the stockholders constitute the corporation, most of the powers must be exercised through the board of directors; this may be provided in the by-laws, although in some States it is specified in the statute which constitutes a part of the charter. Sometimes the "president and board of directors" are specified. While the directors have power to incur debts, and thus to issue bonds, in some by-laws it is provided that the issuance of bonds or the sale of real property shall require the vote of the stockholders; in some States the statute requires this. The by-laws may provide for other general officers, and may also specify their duties; unless so specified, it will be implied that they exercise the powers customary to such officers.

Functions of Stockholders. In the absence of any special requirements, the functions of the stockholders may be restricted to the election of a board of directors and the passing of by-laws; ordinarily they are not so closely confined. Unless otherwise provided, the power to increase or decrease capital stock rests with the stockholders rather than with the board of directors, but there must be some statute authorizing such change;

the same is true of any change in the articles of incorporation. Unless the by-laws provide otherwise, the power to amend by-laws also rests with the stockholders. Nor are the rights of a stockholder confined to action in the meetings; he has a right to inspect the books and papers of the corporation either personally or by agent; but it must be for a proper purpose and at a proper time. While a majority vote of the stockholders controls ordinarily, yet a minority may sometimes enjoin or restrain either action by the board of directors or by a majority of stockholders, if such action is prejudicial to corporate interests or the rights of the minority, which a court of Equity tends to protect.

Payment of Dividends. The stockholders have not the right to compel the payment of a dividend. Such payment is in the discretion of the board of directors, and even when earned, need not be made unless the board thinks best. It may not be paid from capital; it must be from net profits or surplus. It may be in money, stock, or other property. Any act or failure to act, as to dividends or otherwise, which indicates bad faith may, however, be reached by a proceeding in Equity.

Stockholders' Meetings. Stockholders' meetings are held annually and at such other times as special meetings are called. The notice or call for the meeting generally specifies the items of business to come before it. At the annual meeting the election of directors occurs, and this is usually followed immediately by a meeting of the board of directors who at once elect a president and such other officers as seem necessary or wise.

At the annual meeting the stockholders also usually ratify the acts of the directors and officers during the year past. Voting on important matters is ordinarily by shares, and a majority of the shares are necessary to constitute a quorum. A majority of votes represented, elect; in some corporations cumulative voting is practiced; this is allowed by the statutes of some States, but is rather unusual. Under this system, a voter may be allowed to cast six ballots for one director rather than cast one ballot for each of six directors, thus enabling a minority to secure some representation in the directorate, if the minority is not too small. As a rule, few stockholders are actually present at a meeting; when absent, a stockholder is often represented by a "proxy," a sort of power of attorney authorizing another to act in his stead. Voting by proxy is not a Common Law right or privilege, but must be authorized by statute or by-law; as a matter of modern practice, however, most of the votes cast at any stockholders' meetings are by "proxy."

Stockholders' Meetings: Where Held. Unless otherwise clearly authorized by statute, stockholders' meetings must be held in the State where the corporation is chartered; this is especially necessary in the case of the "first meeting" where the incorporation is effected. Ordinarily

there is no requirement that meetings of the directors shall be held within this State; but it is considered desirable that the first meeting of the directors should be held within the State, probably because at this meeting the organization of the corporation is perfected.

Business in Hands of Directors and Officers. The business of the corporation, as has been stated, is carried on by the board of directors, or by the president and board of directors, and not directly by the stockholders, although by by-law or statute certain proceedings must have previous authorization from the stockholders, or in some cases ratification by the stockholders at one of their meetings.

Restricted Powers of Corporations; *Ultra Vires*. In many ways the legal status of the corporation is substantially that of an individual; but while an individual may without restriction do almost any legal act, a corporation is restricted to acts within the scope of the objects or purposes for which it was organized. Other things, although legal in themselves, it may not do, because they are outside the scope of the corporate powers; the expression *ultra vires* is used to characterize acts outside the scope of corporate powers. An official of one of the railroads terminating in Boston subscribed some years ago to a fund to secure the success of the Peace Jubilee, but at the action of a stockholder, he was restrained from paying the subscription out of the funds of the company. The corporation was organized to carry on a railroad, and running a band concert was *ultra vires*. No doubt the Peace Jubilee brought profit to the railroad, but so also did almost any commercial business in the city.

Rights Under *Ultra Vires* Contracts. Not only may a stockholder enjoin a corporation from acting *ultra vires*, but in the case of certain actions, the State may sometimes even proceed to bring about forfeiture of charter. A contract fully executed, however, will seldom be set aside as *ultra vires;* the railroad company for instance might have paid the money at the time it was subscribed for the Peace Jubilee. An executory contract *ultra vires* cannot be enforced by either party, but where something has been done and either party has received benefits, a proceeding in Equity will adjust the matter. Similarly, the law will often protect a person who has honestly performed his part of a contract *ultra vires*, or one who has entered into a contract not clearly *ultra vires* without full knowledge of the circumstances. In case of conveyances by or to the corporation *ultra vires*, authorities differ. It is doubtful if even unanimous action by shareholders will cure an *ultra vires* act; the control of the corporation is in the State and limited by its charter, a control not to be set aside by any action of the shareholders.

Negotiable Instruments *Ultra Vires*. A negotiable instrument issued *ultra vires* in the hand of an innocent party is clearly good under the laws

governing negotiable instruments, unless the instrument in its nature was without the scope of the corporation's power.

Directors as Trustees. The board of directors is also restricted in another way; while the directors are not strictly a board of trustees, their position has much of the same fiduciary quality. They hold a position of trust for the stockholders, not for a majority of stockholders. It has sometimes been held that the directors as a board cannot contract with one of their members as an individual. The prevailing rule is not as strict as that; but any such transaction must be clear and aboveboard and, in case a question is raised, the burden of proof is on the director to show that the contract was fair. It is quite clear that no member of the board may derive any secret profit from his position; any such secret profit can be recovered for the benefit of the corporation. Some years ago the president of a large express company bought for himself a small tributary company and sold it to the larger company at a profit; it was held to be an illegal sale. On the contrary a stockholder may contract freely with the board, and is not restricted in voting because he has an interest in the matter voted; nevertheless, a stockholder with a controlling interest, thus with power to elect directors, must exercise his power in such manner as not to work fraud on the corporation.

Liability of Directors. While the directors are liable for any abuse of trust, for gross negligence and the like, they are not liable for errors of judgment; they are required to exercise ordinary care, skill, and prudence, and to act with honest purpose.

Nevertheless, if officers act in excess of authority, whether *ultra vires* or beyond the authority lodged in them personally, they may be held liable to the corporation, and also to those with whom they deal. Few cases occur, however, where action is taken against an official. Directors, being restricted as to contracting with themselves, are not entitled to payment for their services except as provided in the by-laws or statute, or as voted by the stockholders. Ordinarily there is some such provision, so that they are paid for attending directors' meetings.

Executive Committee. The by-laws often provide for an executive committee as a sub-committee of the board, with important powers, and also authorize the appointment of necessary officers and agents of the corporation. The statute sometimes makes such provision, although the corporation doubtless in the absence of such express provision has inherent power to appoint the officers and agents necessary to the exercise of its functions. It has already been stated that the directors act as a board and not as individuals. If action is taken at any time as the result of personal interviews or after telephone conversations, such action ought to be taken anew, or ratified, at the next meeting of the board. Action taken

after conference by one member with all the others, whether legal or not, is bad business practice and often results in action which would not be possible in an open meeting of the board.

Powers of State over Corporations. While the charter is a contract which the State may not set aside, yet the State may exercise certain powers, not expressed in the charter, over corporations as well as over individuals. For example, it may exercise police powers for the protection of the public in matters of health, safety, comfort, morals, or property. As a matter of Common Law, it is contrary to public policy for the State to relinquish this power. It may thus enforce the rights of the public against a common carrier, to be described in a later chapter, and thus regulate railroad rates unless it has restricted itself in the charter, and even regulate wages paid to employees; it may also prescribe safety appliances for railroads or for manufactories. It has the power to tax corporations in any manner not in violation of either the State or the United States Constitution. If the charter provides for some special method of taxation, the corporation having accepted the charter cannot afterwards object. The State has the power to tax the franchise of the corporation for the right or privilege of doing business.

MUNICIPAL CORPORATIONS

Definition. Municipal corporations are mainly, cities, towns, and counties. They are political units; they are physical units into which a State is geographically divided; but they are also business corporations, and it is from this standpoint that they are of interest here.

How Organized. Small cities, counties, and towns may be organized and may act under general statutes; but large cities are huge business corporations whose administration involves the most difficult problems connected with democratic government; such corporations require careful regulation by the State, and their needs cannot well be met except by special charters which even then need amendment from time to time to cure defects as they become evident.

In many States cities are created by special charter, while in others general statutes control; sometimes the State constitution requires the latter. In such cases it is common to classify cities according to population, with a code of laws for each class. In Illinois, cities are incorporated under general statutes in this way; but as there are no other cities in the same class as Chicago, the statute is in effect a special charter for that city. For other cities in the State, uniformity of treatment secured under general laws seems to have advantages.

City a Business Corporation. It is important that the large city should be recognized to be a great business corporation, and a public ser-

vice corporation. Other large corporations, railroad, telephone, lighting, insurance, and others, have long been under State regulation, and some commission is usually appointed to observe and perhaps control their action and to protect the interests of the public. The State, in its charter for cities, in a similar way not only grants powers, but also imposes restrictions for the purpose of insuring honest and efficient handling of the business of the city.

Acceptance of Charter. The municipal corporation serves as the agent of the State and is thus a convenient means to properly perform its functions with its citizens. It does not seem necessary that the citizens, members of the local corporation, should formally accept the charter, and frequently this is not required; the charter then does not take on the character of a contract, and its repeal is at any time possible. It is quite common, however, for a statute to provide that a new or an amended charter shall have the approval of the citizens before becoming operative. This is ordinarily accomplished by a *referendum* at the next city election.

General Powers. The powers of a municipal corporation have been well stated to be:

1. Those expressly granted.
2. Those necessarily or fairly implied or incident to those expressly granted.
3. Those essential to the declared object and purposes, and not simply convenient, but indispensable.

The powers are closely confined and may not be extended by by-laws or municipal ordinances.

More Specific Powers. It thus has power to make ordinary contracts; to incur debts, but not to borrow money unless specifically authorized; to own property, and acquire it by gift; to indemnify officers; to compromise or arbitrate; to pay money when not legally liable.

It has police powers and in the interest of the public welfare it may exercise them to regulate occupations and amusements, health, nuisances, licenses, markets, fires, care of the indigent and infirm, as well as other matters not here specified. Among other things, it may regulate the running of trains. Another proper function is the regulation of the liquor traffic. To municipal, as to other corporations, the State may and does delegate some of its power, as the power to take lands by right of eminent domain, which is granted to cities and towns, as well as to railroads.

Legislation and Judicial Powers. To municipal corporations alone does the State delegate legislative power and judicial power. They thus have legislative power to pass ordinances; but these must conform to the charter and to the State Constitution, must not be contrary to public policy or other general policy of the State, and not be oppressive or un-

reasonable. As to the judicial powers of a municipal corporation, its courts have some Common Law power as well as jurisdiction with relation to its ordinances, and it has been held that resident citizenship does not disqualify a judge from sitting in municipal cases.

While in a general way the municipality may not delegate its powers; while purely ministerial acts may be done under its authority by persons who act as agents; yet discretionary powers must be exercised directly by the municipality in the channels authorized by charter.

Direct Exercise of State Powers. As the State passes laws affecting its citizens so as to afford greater security to life and property, so also it provides restrictions and checks upon the action of municipal corporations. From this standpoint the Commonwealth of Massachusetts believes that the City of Boston is under better protection if the Police Commissioner is appointed by the State; and the commission which grants liquor licenses is appointed in the same way. In Michigan and in some other States the practice is different, for there the constitutional right of self-government is strongly asserted and certain State appointments of officers to serve the city of Detroit were actually set aside by the courts as illegal, unconstitutional. In most States, however, the Michigan rule does not prevail.

Mayor; Council; Aldermen. The charter specifies the governing body of the municipality, in Boston a Mayor, and a City Council now a single body, although formerly there were a Board of Aldermen and a larger Common Council; the terms of office are specified, as well as the powers granted to each. Like the directors of a business corporation, the members of the Council properly occupy a fiduciary position, although it is sometimes hard to believe it. In addition to the officials specified in the charter, there are others provided for in the ordinances.

Board of Public Work. An important department in that city of great interest to engineers is the Department of Public Works, under a Commissioner of Public Works, "who shall be a civil engineer of recognized standing in his profession"; "who shall construct all streets and sewers," "shall have full charge of all engineering work" "and of the laying out and construction of all public improvements," with some specified exceptions.

Departments. The organization in other cities is often quite different. Whether under a Board (or Department) of Public Works, or under whatever names, there are in every city various departments such as street, water, wire, health, parks and public grounds, sewers and drains, bridges and ferries, and others.

Building Laws. The charter of Boston, in the interest of safety, provides building laws which must be consulted by engineers designing structural details; and these laws must be observed, not only in general terms,

but also with reference to specifications prescribing allowable stresses, for example, or the proportions of materials to be used in concrete; it provides for a Building Commissioner and for inspectors under him. The power of the city to issue licenses is such that little or nothing can be done in new building, or in repairs, or in opening the streets for water, sewer, or gas connections, or for any purpose, without a previous permit or license; the practice of any city at the particular time must be known if the engineer in charge of building construction is to avoid trouble. The requirements as to permits or licenses are prescribed by ordinance in some cases, but sometimes are department regulations only.

Civil Service Provisions. To avoid the evils of political patronage, civil service examinations are in many cases required by charter as a qualification for appointment to many classes of city employment.

Awarding Contracts. To minimize the opportunity for favoritism in awarding contracts for public work the following provision occurs in the charter for Boston:

> Officers and boards shall, in their respective departments, make all necessary contracts for the employment of labor, the supply of materials and the construction, alteration and repair of all public works and buildings.
>
> Every officer or board in charge of a department in said city, when authorized to erect a new building or to make structural changes therein, shall make contracts therefor, not exceeding five, each contract to be subject to the approval of the mayor; and when about to do any work or to make any purchase, the estimated cost of which amounts to or exceeds two thousand dollars, shall, unless the mayor gives a written authority to do otherwise, invite proposals therefor by advertisements.
>
> Every proposal for doing such work or making such sale shall be accompanied by a suitable bond, certified check, or certificate of deposit, for the faithful performance of such proposal.
>
> All contracts made by any department of the city of Boston shall, when the amount involved is two thousand dollars or more, be in writing, and no such contract shall be deemed to have been made or executed until the approval of the mayor in writing is affixed thereto. All such contracts shall be accompanied by a suitable bond or deposit of money or other security for the faithful performance of such contracts.

Most large cities have similar provisions; these are sometimes a part of the charter, sometimes they are only ordinances. A city ordinance of Boston further provides that no head of a department shall construct work until money has been appropriated.

Engineer to Know Formalities. Any contractor or contractor's engineer should know that all required formalities have been complied with before entering upon a contract for public work. If the work is performed without advertising when that is required, any citizen may bring action and prevent the city paying for the work done. In this case the city

cannot pay either at contract rates or on *quantum meruit*, the value of the service. The contract is void because illegal; there cannot be an implied contract, because even the express, written contract is void because illegal. The law was passed to protect the taxpayer and the courts sustain the law; the contractor has ample opportunity to protect himself. He may claim hardship perhaps, but certainly not injustice; the result is due to his own negligence in not knowing whether the contract was legally let. Without such a law the taxpayer has no adequate protection.

Express Legislative Grants. The municipality has no inherent right (nor one implied by the Common Law) to purchase, erect, or maintain water works, gas, or electric plants. This must come by express legislative grant, by statute. It is true also that, ordinarily, the municipality cannot exercise its powers beyond its boundaries; nevertheless a statute sometimes authorizes the municipality to build water work or construct sewers beyond its limits; public necessity demands this, and the law has much regard for necessity; this is shown in decisions under the Common Law as well as by statutory enactment to cure obvious defects in existing laws.

Metropolitan Boards. In some cases several municipalities around some large city may well be included in a general scheme for water supply or for sewerage; in such case the State may provide a Metropolitan Water Board, a Sewerage Board, a Park Commission.

State Control. There is discernible some tendency to exercise State functions to a greater extent in controlling or in directing parts of the work of the large municipal corporations, in which, as political units, there are conditions adverse to the most efficient business administration.

Counties; Towns; School Districts. Counties and towns are also corporate bodies. In New England, the town is the active business unit, and the county's action is comparatively limited; through most of the country the county is the most important business unit, and the town's action is limited. In some parts of the country the school district is a corporate body with power to build schoolhouses and to issue bonds. An engineer connected with any work for a town, county, or school district, should make it a point to know the law with relation to advertising or any other requirements so as to secure technical compliance with such requirements in connection with the work.

Warrants for Town Meeting. In New England, money is appropriated or work authorized by " town meeting." An interesting requirement is that the " warrant," or " warning " as it is often called, the notice or call for the meeting, must specify the various items of business to be transacted. Action taken by the town meeting is not legal unless an article has been included in the warrant providing for action on that particular matter.

The town meeting is a pure democracy in whose proceedings all voters are entitled to participate, and it works well in towns with small population. As population increases, representative government becomes necessary, and has many advantages, as well as some defects. In cities and in counties representative government usually prevails.

Title in Highways. The municipal corporation seldom possesses complete legal title to the highway; it is perhaps *ultra vires* for it to acquire such title. The ultimate title generally remains in the abutting owners, and if vacated as a highway the property reverts to these owners.

Easement in Highways. The use of the streets or highways must be as an easement, for the benefit of the general public. This easement may have resulted from prescription, from dedication, or through the exercise of the right of eminent domain. The regulation of this easement is exercised by the municipality. The grant of a franchise in a highway comes from the legislature, but the charter often vests authority in the municipality to grant locations. The use of a street by a trolley car company is for the benefit of the public so as to make this a public easement, and the courts have decided that a similar use of a street in a subway or tunnel under the streets is a public use for which the abutting owners are not entitled to extra compensation.

Landowner's Right in Highway. While in many cases a municipality may vacate a public way, it has been decided that a landowner entitled to a right of way possesses a right superior to the right to vacate ordinarily possessed by the municipality; but there are some decisions to the contrary. The right of eminent domain is not an inherent or a Common Law right of the municipality, but is a power which must be expressly delegated by the State and exercised by the municipality strictly in accordance with the terms of the statute.

Bonds; Warrants. While a municipality has power to incur debts, it has no power to issue bonds, except as authorized by statute. Even then these may be issued only for public purposes; the building of either highways or railways is held to be for public purposes. In some parts of the country it is customary, in the absence of cash available, to issue warrants in payment for services or goods: these are simply orders on the treasury, payable when funds become available. These warrants are substantially negotiable and do in practice pass from hand to hand. With bonds or with warrants, limitations as to their issue are often imposed by statute.

Taxation. The power of taxation exercised by municipalities is derived from the State and should be expressly granted in the charter. Although the power may be implied in some cases, it may be exercised for public purposes only. Special assessments in the form of betterments or benefits

or otherwise must be expressly authorized, and the power must be exercised in strict conformity to the statute.

Aid to Railroads. If properly authorized, a municipality may aid in the construction of railroads either by subscription or donation, and may issue bonds to secure the money required. Such action is not *ultra vires*, as railroads are public highways in which the public has rights, as has been stated in connection with the right of eminent domain.

Officers and Employees. The work of most corporations, business or municipal, is performed through the services of a number of employees, some of them officers who are in a sense the corporation itself; some of them are essentially agents; others are known in the law as servants.

The corporation, like an individual, is liable for torts of its servants committed within the course of their employment, whether malicious, accidental, or otherwise. The corporation may even be criminally responsible; or it may be guilty of contempt of court; that is for either offence it may be fined. In many cases, however, the action may better be had against the individual who is at fault, the officer, or agent, or servant, for he can be imprisoned. The corporation while financially more responsible in case of a fine, is not subject to imprisonment which may reach the individual, a fact which may act as a deterrent. Further attention to the subject of employees is reserved for the next chapter.

CHAPTER VIII

AGENCY. MASTER AND SERVANT

Agents and Servants. In England there formerly was a clear distinction made or attempted between agents and servants; a distinction of some importance where many of the latter were menials. In the United States at the present time there is a tendency to minimize any such distinction and to use the word "employee."

There is a wide gulf between certain agents and some kinds of servants. A real estate agent often has had no contact with his principal except to accept the agency and arrange the price; he conducts his agency by his own methods, independently of his principal who very frequently has weaker financial ability than the agent. A farm hand, on the other hand, does the work required in the form and in other respects as ordered by his master, and in general is without financial responsibility. While the distinction is here clear enough, in many cases it is difficult to distinguish between the two classes of employees. Judges and authors of law treatises have alike been unsuccessful in framing satisfactory definitions.

Distinctions between Agents and Servants. Certain distinctions between agents and servants, however, may be stated. The servant does for his master as a matter of service the things that he is hired to do; the agent represents his principal in business transactions of the sort for which he is employed. The servant receives orders as to the performance of his work; the agent is intrusted with the business of his principal. The servant seldom has power to contract for his master's benefit; the agent's duties are largely contractual.

The agent deals with third parties in connection with the property of the principal, in buying, selling, leasing, collecting, or some similar way. The servant does what is required of him in the way of service either to his master, or to third parties for the benefit of his master. The power of control by the master over the servant is an important, perhaps the essential, feature; this may sometimes serve to determine which of two or more persons is the master where the servant's act has created liability for someone. It is further true that a man may be an agent with reference to certain of his duties and a servant in certain other duties; he may be at the same time both servant and agent.

The distinction has practical importance, as a master is responsible for the acts of a servant, sometimes in cases where the same act or a similar act by an agent will not make his principal liable.

Liability More Important than Definition. In many cases the nature of the act and the circumstances surrounding it will serve to establish the liability, or lack of it, of the principal or master on the one hand, or of the agent or servant on the other, without involving subtle distinctions of definition. At the trial it will be determined, if necessary, whether some act involved liability on the part of the principal or master. The jury will pass on the facts, or where these are undisputed, the judge will determine their legal effect. If the action of the jury seems legally unsound in view of the facts presented and the judge's instructions the judge may set aside the verdict as " contrary to the law and facts in the case."

Effect of Statute Law. Recent legislation has provided Statute Law which has done away with some of the earlier fine distinctions, and has made use of the words " employee " or " workman." The greater part of such legislation affects only the relations between employer and employee, and does not touch their relations with third parties. There is some advantage in discussing the law of agency and the law of master and servant separately, in certain respects at least.

AGENCY

Creation of Agency. The functions of an agent are properly contractual. An agency is created ordinarily either by appointment or by ratification. It may be express or implied; if express, it may be either written or oral. If by appointment in the case of personal property, the authority to buy, or sell, or fix prices, may be either written or oral, or perhaps in whole or part by conduct; the request of a principal, written or oral, followed by the entrance upon his duties by the agent, constitutes appointment.

The appointment must be written in certain cases where the principal's act must be in writing, but not in all such cases. In some States it is necessary in case of a lease. In the case of a deed conveying real property, or other instrument which must be executed under seal, the authority of the agent must be under seal also.

Authorization by Contract. The agency is brought about by contract; the authorization, when accepted, is a contract. The agency may be implied as in other cases of contract; if services are rendered, the law implies from their acceptance, not only the assumption of responsibility for the acts, but also a promise to pay for their performance.

Ratification. It often happens that someone performs an act in

behalf of another, for his benefit, substantially as an agent, but without prior authorization, or in excess of authority; if the beneficiary assents to and adopts the action, then by such "ratification," as it is called, a relation of principal and agent is established.

Express or Implied Ratification. This ratification may be express or implied; it may be written, oral, or by conduct; silence is one phase of conduct. The acceptance of benefits from the act constitutes such conduct; acquiescence has sometimes the same effect, this more clearly in a case where the act was one in excess of the authority of an agent.

Principal must be Certain. An act to be subject to ratification must, as a rule, have been openly done by one posing as an agent, in behalf of the person who becomes the principal by ratifying it. While the latter need not be specified, he apparently must be indicated sufficiently to make his identity certain. Assent or adoption by any other person does not create an agency by ratification.

Assent to Legal Acts with Knowledge. To constitute a ratification sufficient to bind the principal, the assent of the principal must be with knowledge of all material facts, or in disregard of them. A principal may ratify any act which he might himself perform, but not illegal acts, nor acts from which he would be estopped. If an act by him must be in writing or other necessary form, his ratification must also be in such form. A ratification once made is irrevocable and binds the principal to responsibility for the acts of his agent, whether in contract or in tort.

Ratification Binds Parties. When ratification has taken place, the third party and principal then become equally bound as the parties to the contract made by the agent. Whether the third party has the right to withdraw pending ratification seems to be not fully settled. The principal can not by ratification give precedence to the acts of his agent over acts of his own in which strangers had acquired rights; for instance, if an agent sells goods and the principal meantime has sold the same goods to a stranger, the principal can not by ratification avoid his own sale to the stranger.

Estoppel. Somewhat along the same line, if a person has encouraged or allowed a third party to believe an agency exists, he is estopped from denying such an agency and is virtually held as principal. The conduct of the principal is measured upon substantially the lines which constitute fraud or deceit as indicated in the chapter on torts.

Agency by Necessity. There is further an agency by "necessity." A wife or minor may thus act for the husband or father in purchasing necessaries; a shipmaster in buying supplies. In the case of delay by act of God, a railroad company may and should sell perishable freight.

Minor as Agent. It is an interesting fact that a minor (under 21 years) may lawfully contract as agent for another although he could not do so

for himself. The law throws its protecting arm around the minor's interests; the principal who employs the minor is competent to take care of himself. The minor is not competent, however, to make the contract of agency between the principal and himself; at least such a contract is voidable by the minor.

Kinds of Agents. In business, there are agents to sell, purchase, collect, execute commercial paper, manage business; to act as bank cashiers, shipmasters, factors, brokers, auctioneers, attorneys at law, and in various other capacities.

Special or General. An agent may be special or general. A special agent is limited in his authority to specific acts. A general agent ordinarily has not unlimited authority or powers, but has full authority or power to do all acts incidental, necessary, or usual to agency in the line of business in which he is engaged. A good example of special agency is that created by a power of attorney authorizing another to do specific acts in the stead of the principal. An example of a general agent is the manager of a commercial or manufacturing establishment. It is evident that a corporation can act only through its officers or agents in general business operations.

Express Authorization. In the case of express authorization of a special agent, the writing should show the extent and character of the agency. In the case of express authorization of a general agent, however, the terms can seldom be complete and explicit. In general, in such cases, any writing will be construed liberally to effect the object, and favorably to an agent as regards any acts done in good faith, and favorably also to a third party. As an aid to determining how far the agency extends, the custom as to agents and general usage in the same or similar lines of business may be invoked, and any ratification by the principal of acts of the agent would have considerable bearing. The principle of ratification is clearly important in connection with agency.

That the line of cleavage as to appointment or ratification will not always be clear, must be evident, and it is the legitimate function of a suit at law to settle any resulting difference of opinion. The burden of proof as to the existence of the agency is on the person dealing with the agent.

Joint Agents. Sometimes two persons are joint agents. The general rule is that in such cases the action of both is essential. Where, however, the intent is apparently otherwise, or where custom serves to determine the status, either one may act. This is also true when partnerships are agents.

Principal Bound by Acts of Agent. Where the relation of agency exists, the principal is bound by the acts of the agent exercised within his authority. He is bound not merely by the agent's contracts, but also by torts com-

mitted by him while engaged in acts within the scope of his authority. For example, where a fraud is committed by the agent for the principal's benefit in connection with making a contract, or in case he entices an employee from another employer, acts characteristic of an agent rather than a servant, the principal is responsible; the tort may sometimes be negligence, although more often negligence is an act characteristic of a servant rather than an agent. The principal, however, can seldom be held to criminal responsibility for acts of an agent.

Liability of Agent and Third Party. The agent is also personally liable for torts committed by him, and may be sued if the third party prefers and considers his financial responsibility sufficient. In a similar way the third party is liable to the principal for torts committed in transactions with the agent. On the other hand, the fraud of the third party in connection with a contract acts as a release if the principal so desires.

When Principal is Bound. The principal is bound then: first, when acts of an agent are within the scope of his actual authority; second, when not authorized, but ratified; third, when within the scope of his apparent authority, unless notice is given to the third party. Similarly he may be bound by the acts of his agent even after the termination of the agency in some cases where the third party had no notice of such termination, nor reason to suspect it.

Notice to Agent. The agent represents the principal to such an extent that the latter is bound if the agent acquires knowledge or receives notice in matters within his range of action; and admissions of an agent within the scope of his authority are also competent evidence against the principal.

Delegation of Authority. The general principle prevails that the agent has no power to delegate his authority unless this is expressly or impliedly conferred, because the appointment of agent is with recognition of his fitness. It is held, however, that for ministerial acts performed by clerks and not involving discretion, such authority may be delegated. In modern large business, clerks of varying responsibilities are used, and apparently on the basis of necessity, delegation of authority involving discretion is allowable in extension of subordinate action rather than in the way of substitution, at which the law will surely look askance. The custom of the business is an important matter in justification of such delegation of authority.

Form of Contract by Agent. When an agent, in behalf of his principal, makes a contract, it should be, in its form, in the name of the principal; if it is in the name of the agent, although acting for the principal, the agent will be bound and not the principal, unless from other evidence the fact of agency be apparent. The intent here also is the important element, a question of fact for the jury. A third party may sue or be sued when the

agent has in his own name contracted for an undisclosed principal; in such a suit either the agent, or the principal when he becomes known, may be the party to the suit. If the principal intervenes, the right of the agent ceases. While, in the above cases, the action indicated may be taken with ordinary writings or oral contracts, yet with instruments under seal the principal must be stated as a party, and the same rule holds with negotiable instruments. Sometimes an apparent agent is the real principal, and evidence is admissible on this point.

Acts Without Authority. If a person wrongfully acts for another without authority, and his act be not ratified, the person thus acting as agent is liable to the third party, whether the resulting damages be determined on the basis of breach of contract, or on breach of warranty of authority, or by some other form of action.

Responsibility of Third Party to Principal. A third party, entering into a contract through an agent properly qualified, is responsible directly to the principal. This is true, largely, even when the principal is undisclosed, and the contract was apparently that of the agent. This rule does not hold for instruments under seal or for negotiable instruments. In many business transactions it matters little who the other party is; but every one has a right to choose and if it appears that the third party placed dependence upon the agent personally as the apparent principal, the agent will then be held to be the party to the transaction. Sometimes the third party by mistake or fraud has received money or goods which in good conscience he could not retain; the undisclosed principal will then have his right of action. If the third party has been guilty of fraud to the injury of the undisclosed principal, whether or not by collusion with the agent, the principal again may sue.

Duty of Agent. In the relations of agent and principal with each other it is the duty of the agent to obey instructions unless illegal or impossible, or in emergencies, or where obedience would impair the security for advances made; to exercise proper skill, care, and diligence; to act in good faith, not to his own profit, and not for adverse interests or as agent for both parties to a transaction; to give due information to his principal; to keep accounts, and to account, keep the principal's money separate, and pay it over when due or proper.

Duty of Principal. It is the duty of the principal to pay the remuneration agreed upon, or in the absence of an agreement, the reasonable value of the agent's services; to reimburse for expenses; and to indemnify for acts performed under the agency. To secure these the agent may, if necessary, sue in a court of Law, or in cases of involved accounts, in a court of Equity. In some cases he may have a lien upon goods of the principal in his possession, that is he may have a right to hold the goods

as security. In such case a lawyer should be promptly consulted, if possible.

Termination of Agency. An agency may be terminated by express or implied limitation; by act of either party, provided no interest has been acquired or rights accrued; by operation of law; by death; by insanity or other incompetence; by war; or by bankruptcy. When terminated by act of either party, proper notice should be given to the other party, and often to third parties. There are cases of agency, however, where the agent has acquired in some proper way interests that render the agency irrevocable, but it is not important to discuss such cases here.

Engineer's Interest in Agency. The engineer's interest in agency is many sided, as he may occupy the position of principal, general agent, subagent, or third party. His position in any contingency should be made clear so far as his own action controls, and wherever possible he should have evidence to establish his own status and that of others involved, so that the probability of misunderstanding and resulting litigation may be reduced to a minimum.

MASTER AND SERVANT

Positions Held by Servants. In manufacturing, in transportation, in municipal or other general construction work, those employees engaged in construction, operation, or maintenance, are in general servants in the eye of the law. This seems natural and clear as to those termed workmen, but it is also true of many holding responsible positions, engineers included.

Contract of Service. When the relation of master and servant exists, the master is entitled to services and the servant to wages. The employment of the servant is under a contract which may be expressed, but often is implied; services rendered are presumed to be for wages and not gratuitous; for adequate wages in the absence of express agreement, oral or written. Unless necessary under the Statute of Frauds or specially required otherwise, the agreement need not be in writing.

Terms of Service. The time of beginning service, the period, the terms of payment, and other conditions are commonly questions of fact to be determined in the usual way. In cases of ordinary employment, custom determines many questions. Unless the length of service be specified, it may be terminated by either employer or employee after notice which must be reasonable. If employment and term of payment of wages be for the week or the month, a notice of a week or month will be deemed reasonable and necessary. Where employment is by the year, rather than for a year, a month's notice would probably be held reasonable; where for a year, a similar notice of a month previous to the end of the term would probably also serve.

Dismissal or Withdrawal. Dismissal by the employer, or withdrawal by the employee without adequate cause and without notice, constitutes a breach of contract. In case of improper dismissal the employer is liable for wages for the unexpired term of service, with board and keep if part of the wages. The employee is liable for any damages sustained by a breach in his part and, from this standpoint, may find it impossible to collect wages otherwise then due; the employer, while legally entitled to any damages suffered, may often be unable to collect from such an employee on account of the latter's lack of financial responsibility.

Cause of Dismissal. Sometimes it is difficult, even for the parties, to clearly know who broke the relation; who did so is a matter of evidence and the jury decides. Dismissal for cause often results from breach of contract by the employee. Discharge may be for adequate cause such as disobedience, want of respect, dishonesty, drunkenness, insubordination, or other misconduct; or for incompetence, general neglect, or absence from work; all of which the jury will decide as questions of fact. As to incompetence, the engineer employee should realize that the skill required of him is that of the ordinary average of the profession as a body, or, in a position of special responsibility, the average skill of others in like positions. Illness which prevents service may often terminate service; a short illness commonly will not do so; in any case it is not a breach of contract. The cause for discharge may not be known or disclosed at the time; that it really exists, legally suffices.

Some Rights of Employee. On the other hand, the employer must furnish work to the employee paid by the job. This, or other failure of the employer to permit service, is equivalent to dismissal or to notice. Bankruptcy may terminate employment; in this case, in many States, the wage earner is made a preferred creditor. The requirement of service outside the reasonable range of duties for which the employee is hired is also a breach of contract by the employer.

Locality of Employment. Similarly a requirement to work in a different locality cannot ordinarily be enforced. In all such cases, however, conditions and customs may need to be considered to determine whether a requirement is within the reasonable purpose and intent of the employment. The sanitary or hydraulic engineer in the office of a consulting engineer would reasonably expect service in various localities; a mining engineer might perhaps expect nothing else than service away from office headquarters. A definite understanding as to this matter is desirable both for the employee, the young engineer, and for his employer. The contract between any employer and employee, whether it be oral or written, should show with reasonable certainty the character of the work to be performed. Very commonly the interchange of letters, written with care, serves to fix

the terms of the contract; a formal contract sometimes suggests strained relations and is seldom necessary.

Employee's Remedy for Discharge. In case of wrongful discharge, the employee may choose between two courses; he may consider the contract first, as continuing; or second, as ended. In the latter case he is entitled to payment for service rendered "*quantum meruit*"; in the former case he will be entitled at the close of the term of contract to draw pay for the full term of contract less what he has earned in the meantime or might have earned if diligent. It is his duty to use ordinary diligence in seeking other employment in line with, or not inconsistent with, the duties for which he was employed. If the discharge or breach of contract comes from a failure of the employer to give him work, the employee need not show an offer to work; willingness, readiness to work is sufficient.

Letter of Recommendation. When a servant, an employee, is discharged or his employment is ended, the employer is not bound to give a letter of recommendation to the departing employee. He is privileged to frankly, but truly, give information when solicited; but the use of a blacklist, or organized effort to prevent further employment of a former employee, has the quality of conspiracy and is illegal.

Products of Employee's Labors; Inventions. In general, the master is entitled to whatever his servant earns from others; but the employer is not entitled to earnings made outside the hours of service and independent of his service. The question arises sometimes as to ownership in inventions, and the rule seems to be that inventions which have a direct and immediate connection with the work and duties of the employee and are made during his hours of employment belong to the employer; this is more certainly the case when the employee is engaged in what may be called research work. Inventions made outside the hours of service and not in the line of service of the employee clearly belong to the employee. There is bound to exist a twilight zone of uncertainty, where the question of intent may be important.

Statute Provisions. In addition to what the Common Law requires as to payment of wages, there are in many States, statute requirements governing the computation of wages, rates, times of payment, working hours, treatment in case of breach of contract, and other miscellaneous provisions.

Responsibility for Acts of Servant. While in general a man shall be held to answer for his own wrongs committed, yet when an innocent third party was injured through the act of a servant financially irresponsible, it seemed just, under the Common Law, that the master, as a rule financially responsible, should right the wrong done by the servant controlled by him while in the performance of an act which the master either directed him to do or might reasonably expect him to do in his service, although not in

a wrongful manner. The loss should fall, not on the innocent third party, but with some show of justice on the master who at least chose his servant and had some chance to foresee a wrongful result and perhaps guard against it. Now, with the law once established, the master chooses his servant with full knowledge that he assumes responsibility for his servant's acts.

Rule Stated. Whatever the logic or history of the rule, the master is responsible for the acts of his servant done within the general range of his duties; the law has stated that

"the master is liable for the torts, negligences and other malfeasances or misfeasances, and omission of duty of his servant, in the course of his employment although the principal did not authorize them, or justify or participate in, or indeed know of such misconduct, or even if he forbade or disapproved them."

Nor does it matter that it was malicious on the part of the servant. This means that the employer is responsible for money damages to cover an injury inflicted; he is not criminally responsible unless the act was definitely authorized by him or unless he was criminally negligent in selecting a reckless or inefficient servant.

Essential Points. The essential points are that the relation of master and servant must exist, and that the servant must have been at the time upon his master's business and acting in the line of his duties. In a case at law, the critical point often will be whether the servant was acting in the line of his duties, although there may be also a question as to the existence of the relation of master and servant. In manufacturing, in transportation, or in large construction work, most employees have their duties well defined although some do not.

Employee's Negligence. While the employee's act may be a nuisance or fraud, or other form of tort, the law is of interest largely along the line of negligence. Negligence on the part of an employee may involve injury to property or to persons, and a person injured may be either another employee in the same service or some outsider quite disconnected with such service. In the latter case the law clearly holds the master responsible for any negligence of his servant. While the master is clearly liable to an injured third party, the servant is equally so, and the injured party may pursue his remedy against the servant if he thinks best, but will seldom do so because of lack of financial ability on the part of the servant.

Fellow-Servant or Co-Employee. Formerly the master was responsible, in an entirely similar way, to one employee for the wrongful acts of another employee. After a time, without statutory interference, the Common Law, under changed conditions, held that the master was not liable for injuries to one employee from the wrongful act of his "fellow-servant," or "co-employee."

Reason for Old Rule. In earlier days employers were often men of small means, and there was hardship as well as apparent injustice in holding them responsible where there was no personal negligence on their part. The employee was as well qualified as his employer to judge of the skill and competence of his fellow-worker, and could wisely be held to assume the risk of working with him. Furthermore, employees in general, as well as the community, would suffer if an employer was driven to the wall by the payment of large sums for personal injuries. The rule was probably a good one.

With larger enterprises and especially with large corporations, it has come about that different classes or groups of employees have had nothing in common with each other. The employer often has large financial ability, and can in any event find an insurance company to insure him against damages for personal injuries.

Assumption of Risk. There developed along with this law of fellow-servant and perhaps as a part of it, the principle that a workman entering into employment saw, or knew and accepted, the ordinary risks, sometimes extra hazardous, involved in the employment, and that the master was not responsible for injuries to which the employee knew he was liable.

Contributory Negligence. The doctrine of contributory negligence, which affected third persons as well as employees, also entered into the matter. Under this rule of law the employer was not liable to the employee if any negligence on the part of the latter contributed appreciably to the injury. In some States the burden of proof was on the employee suing; he must prove freedom from contributory negligence on his part. What constituted contributory negligence was sometimes held to be a matter of law for the judge to decide, and not of fact for the jury; although in some jurisdictions and in some cases, it was regarded as a question of fact for the jury to decide. Statute Law in some States now specifically provides that the question of contributory negligence is for the jury to decide.

Employer's Responsibility. Under the Common Law the employer was, however, guilty of negligence if he was personally careless, or if he allowed his premises or plant to remain in dangerous condition when he knew or ought to know that their condition was dangerous. He was under legal obligation to provide and maintain suitable and fit materials and plant for the work; to keep the premises in safe condition so far as possible and to so conduct his business as not to render it unnecessarily dangerous to employees, and to exercise reasonable care in the selection of competent employees and in the number necessary.

Ordinary Care Required. The measure of the employer's Common Law duty in such matters is ordinary care, such care as does not indicate

negligence, which is treated more fully in a preceding chapter on torts. The definition of what is ordinary care, or on the contrary, what is negligence, is the duty of the court in the instructions to the jury. What the facts are in the case bearing upon care or negligence are for the jury to decide. The decision, where there is conflict of testimony, is for the jury, acting under the judge's instructions.

Kind of Plant Demanded. Under this phase of the Common Law, the master's duties do not require him to furnish the best, safest, or newest appliances or to change them for new inventions; but the plant must be such as is ordinarily sufficient for the purpose, or such as is in general use, and reasonably safe according to the customs and ordinary risks of the business. The master must not allow his plant to become dangerous through lack of repair or from age and deterioration. For hidden defects the employer is not responsible, and it should be remembered that "defective" and "dangerous" are not necessarily synonymous terms. The standard of care demanded is that of an average prudent, cautious, and skilful man under the circumstances existing. That later events prove that some special device or precautions would have prevented an accident does not tend to show negligence.

Negligence of Employees. Furthermore, the master is not responsible at Common Law for careless, unnecessary, or inappropriate use of an appliance by the employee, or by a co-employee, or for a failure by the employee or co-employee to keep the appliance in repair. The contributory negligence of the employee, or the negligent act of the co-employee, exempts the employer from liability.

Reporting Defects. Upon the employee has devolved some duty to report to his employer any defects or dangerous lack of repair beyond what it is his duty to put in order himself; a failure to do so relieves the employer whether it be as contributory negligence, or the assumption of a known risk of which the employee often has better knowledge than the master; a promise by the employer to repair relieves the employee; but if repair is not made within a reasonable time the employee is deemed to have waived his objections.

Opportunity of Disagreement. The opportunity for a conflict of interests or for a disagreement as to facts in these matters makes a lawsuit probable and entirely reasonable. The legitimate purpose of a suit is to settle just such matters.

Care in Selecting Employees. Where the fault lay in the wrongful act of a co-employee, the question often arose whether the employer exercised proper care in the employment of the co-employee; this was quite true in general, but was of peculiar importance where the co-employee held some superiority of position or authority. The question of the em-

ployer's knowledge, or duty to know, as to the character of the co-employee has been again a source of controversy as to the facts.

Regulations for Safety. The employer again owes a duty to exercise control over the business through proper regulations for its safe conduct. How far an accident is due to imperfect control by the employer, and how far to lack of obedience by employees, may become a source of controversy.

Warning against Danger. The employer furthermore owes a duty to warn or to impart to the employee knowledge of latent dangers or special precautions within the knowledge of the employer and unlikely to be appreciated by the employee unless specially informed, but not of such dangers as the employee might equally appreciate; such risks the employee assumes with the service.

Who are Co-Employees? A further question has been the subject of controversy, and with different rules prevailing in different States. Who are fellow-servants or co-employees? If an employer carries on several distinct lines of business, the employees in one line are clearly not co-employees of those in another line. If two such lines of business are combined, and the two sets of employees seldom have contact with each other, in some States they are co-employees and in others not.

Vice-Principal. It is further held in some States that certain employees have sufficient authority so that they occupy a position of "vice-principal" and their acts are the acts of the employer and not of a co-employee. In 1884, the U. S. Supreme Court held that the wrongful act of the conductor of a train was the act of the railroad company, and not of a co-employee, in a case where the locomotive engineer of another train was hurt in a collision. This was a new application of the Common Law to meet modern conditions, and at the time occasioned much comment. The rule has not prevailed in all States. The various States are each sovereign and are not controlled by the U. S. courts, although the opinions of the latter always have great weight, as has been stated previously.

Contributory Negligence. The question of contributory negligence has been briefly referred to. The courts in the various States do not follow a uniform rule. In general, if the employee had shown negligence which proximately contributed to the accident, the employer is not liable. In applying this rule some difficulty results. In some States there is a modification of the doctrine known as "comparative negligence," where some small degree of negligence by the employee is unimportant if gross negligence occurred on the part of the employer. Due to the somewhat divergent views of the courts in different States, and the uncertain action of juries, together with the question as to how far the court and how far the jury determines in a specific case whether contributory negligence existed to free the employer from liability, the abstract question of responsibility

is not for any layman, engineer, or otherwise to determine as assuring the outcome of a lawsuit when this question is involved.

Master and Servant Rule Unsatisfactory. The law of master and servant, taking into account its developments, was not in its essence bad law, but under modern conditions its operation had proved very unsatisfactory. In the case of large business concerns, whether corporations or not, the employee had no remedy in the case of hidden defects; obvious defects he must report, and unfortunately persistent effort in this direction on his part sometimes meant dismissal. Furthermore, the opportunity to raise questions of law and questions of fact was unusually great in the event of a trial at law.

If the employee was injured his employer had adequate financial resources to employ able lawyers and to secure technical expert testimony for which a fee of fifty dollars a day was not unusual. In most cases neither the able lawyer nor the technical expert was within the reasonable reach of the employee.

A common outcome was the undertaking of the case by some lawyer for a contingent fee, based in amount upon the size of the award for damages if any was obtained, and this frequently was as much as one half the award.

EMPLOYERS' LIABILITY ACTS

Scope of Acts of Relief. In the course of time it became apparent that Statute Law ought to be enacted to give better protection to the employee. The relief sought through statutory enactments has been provided in part under the name of Employers' Liability Act, although in some cases more general laws have effected the same purpose. Some of these laws flatly deny to the employer the defense of common employment; others, to the same effect, declare the liability of the employer to an employee to be the same as to a stranger. In some States this rule applies under all circumstances; in others under specified conditions only, such as a defect in plant, the act of a superintendent or of any other to whose orders the employee must conform, or obedience to regulations from the employer. Some statutes specify the liability of the employer for acts of "superior servants" and exempt him for acts of "servants of the same grade" or of "servants in the same department."

Provisions of Employers' Liability Act. The Employers' Liability Act of one of the States, has held the employer liable for:

"Defect in condition of way, works, plant, or machinery, caused, undiscovered or unremedied by the negligence of the employer, or some person intrusted with such duty.

"Negligence of fellow-servant exercising some superintendence in the case.

"Negligence of some one to whom the injured servant was bound to and did conform, with resulting injury.

"An injury due to rules or by-laws for which employer had responsibility.

"Negligence of fellow-servant in charge of any switches, signals, locomotives, or trains on a railway."

This law while marking an advance, nevertheless has failed to reach several of the difficulties. Under it the employee still assumes something of the risk of hazardous employment; if he cares to, he may by contract waive his rights (and may be required to before employment is secured). The act does not help matters unless the co-employee at fault exercised some functions of superintendence or special defined responsibility, and the employee still must show absence of contributory negligence on his part (in many States). Moreover, he generally has to give to his lawyer one half or more of any sum awarded, and is likely to have opposed to him the best skill and all the resources that the large insurance company possesses, including the employment of competent and expensive engineering and medical experts. The opportunity for expensive litigation is not diminished by this act; in interpreting its provisions, it is perhaps rather increased.

Defects of Act. The statutes of each State must be read to find the provisions of any employers' liability act or similar statutory provision. These acts failed to reach many of the difficulties requiring a remedy. The necessity for bringing a suit at law, securing the services of technical experts, paying the lawyer's contingent fee, together with the difficulty of fixing the responsibility of the employer, and in some States, the omission of any scale of amounts recoverable, still left the remedy very unsatisfactory to the employee; moreover, the difficulty as to contributory negligence was in most States not done away with. The recognition of these defects and of the almost hopeless burden which they imposed upon injured employees led to the passage of Workmen's Compensation Acts.

WORKMEN'S COMPENSATION ACTS

Common Provisions of Act. In a large number of States, what are called "Workmen's Compensation Acts" represent the latest form of legislation which bids fair to extend to all the States. In 1917 as many as 33 States had passed such acts.

The law in Massachusetts, and in substantial accord in other States, provides for compensation to a workman for

"personal injury arising out of and in the course of his employments"

specifying, however, that:

"If the employee is injured by reason of his serious and wilful misconduct, he shall not receive compensation."

Under this law as first passed and still in force in 1917 the employer may become a "subscriber" by joining a Coöperative Employees' Insurance Association authorised by the act or by taking out insurance in an authorized private company. If the employer fails to become such "subscriber" the act provides that:

"it shall not be a defence:
(1) That the employee was negligent.
(2) That the injury was caused by the negligence of a fellow employee.
(3) That the employee had assumed the risk of the injury."

The act further provides that the employee shall come under the provisions of the act unless he promptly after employment states his choice and desire to depend upon his Common Law remedy.

Scale of Payment. The act further provides a scale of payment for various injuries, and for beneficiaries differing somewhat from those recognized by previous provisions of the law; for the appointment of an Industrial Accident Board to investigate injuries and apportion compensation without resort to a court, and with power to fix fees for attorneys and physicians. A further provision in Massachusetts is for an association of employers of ample size and financial responsibility to take the place of privately managed insurance associations if the employer elects to join such association of employers. There are provisions in other States by which some form of self-insurance is provided for employers.

Acceptability to Employers. While the total amount paid for accidents under such a statute may be larger than had previously been the case, many employers are found to feel reconciled, or even content, in view of the fact that the workman receives practically all that is paid out; while, in view of the employer's saving in lawyer's and expert's fees and in court costs, the outgo on the whole may prove to be not much greater than formerly.

In Massachusetts, farm laborers and domestic servants are not included in the operation of the act. In some other States its action is restricted to employers who have five or more employees or some similar small number. The omission of farm employees was well calculated to facilitate the passage of an act of this character.

The statute for any State in question should be carefully examined, and from year to year amendments should be noted as they are frequent in so important a statute, rather new in character and scope.

INDEPENDENT CONTRACTOR

Definition. It is not true that all persons under employment are servants. Where one person contracts to do a specific piece of work for another, he does it very often as an "independent contractor." The

servant works under the continued direction and control of the employer; the independent contractor is engaged to do a specific job, and as to methods and means is largely independent of the party who ordered the work done; his obligation is to furnish a proper completed result, in many cases furnishing material as well as performing or providing the labor.

Circumstances Surrounding. For the purpose of determining the status of the independent contractor, it is not conclusive that payment is by the job, or to the contrary by the day or its equivalent. All the circumstances surrounding the employment, the kind of work undertaken, the independent character of the business of the contractor, his employment of subordinates, are elements entering into the determination. Whether the employer often or regularly employs servants or contractors for similar work may be of importance also. Whether the employer has the right to terminate the employment at any time has significance, although it is not conclusive.

Direction of an Engineer. The fact that the work is done under specifications as to the manner in which the work shall be carried on, that the work is done under the general supervision of an engineer, or that the employer reserves the right to demand the discharge of an employee deemed by him incompetent, does not destroy the relation of independent contractor. In most important contracts for public work such provisions exist, where the character of independent contractor can not well be questioned.

Architects and Engineers. The architect who inspects the construction of a house is not an employee of the owner. What is the status of an engineer? If hired directly by a city or railroad company or an individual, he is an employee; if hired directly by an engineering firm employed by a city to report upon a scheme for water supply, or grade-crossing abolition, or electric lighting, or to test boiler and engine plants, he is the employee of the independent contractor and not of the city or railroad or other individual employer.

Opportunity for Misunderstanding. It is well to appreciate that the terms under which work is done are often none too explicit, and frequently oral; that there is an opportunity for a disagreement as to the facts determining whether a man was an employee or independent contractor, with a resulting lawsuit; and that the distinction becomes important if a question arises whether a workman is an employee and included under the provisions of a "Workmen's Compensation Act," although in some cases Statute Law has provided that the employer is liable to servants of an independent contractor. The careful engineer will attempt to avoid difficulty of this sort in advance, if opportunity occurs; or, in a case where injury has resulted, will endeavor to secure such facts touching this matter

as he may in his client's interest, as well as facts against his client's interest. The lawyer ought to know both sides of the case, whether it be to indicate the desirability of a private settlement or to allow him to understand the case in all its bearings.

Independent Contractor Responsible. The employer, whether municipality, other corporation, or individual, is in general not responsible personally or otherwise to third parties, to other employees, or to the employees of the contractor for the negligent or other wrongful acts of the independent contractor. The relation of master and servant is completely absent. Contracts sometimes specifically provide that the contractor shall be responsible for the negligence of his employees.

Exceptions. If, however, the specifications or other directions to the contractor are the cause of some injury which, except for such instructions, would not have occurred, the employer, and not the contractor, is liable. The same is true where the character of the work naturally or necessarily brings about the injury; where the result is due not to the way the work is done, but to its being done at all; or where defective plans and methods caused the injury and not the way they are carried out. So also in the case of work so inherently dangerous that injury will result unless extraordinary precautions are taken, where the employer should see that they are taken. Where the employer exercises interference with the work in a way to contribute to the injury, the employer and not the contractor is liable. The power or authority which an engineer has over the contractor in many classes of work is such that the engineer should guard against exercising his control in such a way or in such matters that the employer may become responsible and liable for injuries that may result, perhaps on the ground that the engineer, as a participant in the tortious act, involved his master.

Legal Duty of Employer. Where, by statute, under the Common Law or otherwise, a person has a duty imposed upon him and the execution of the work brings such a duty into action, the use of an independent contractor does not divest him of the duty. The proper lighting of a sewer trench has been held to be a duty upon the city or the private owner, which no arrangement with a contractor can set aside. The employment of an incompetent contractor or the furnishing of unsafe appliances by the employer also leaves the employer liable.

Rights of Third Parties. An agreement by the contractor to assume all liability is effective to protect the employer eventually, but it does not destroy the right of a third party to bring his suit against the employer; the employer may recoup himself, and the bond usually required should provide proper security for this purpose.

Statute Liability. In some States, a statute provides that the employer

is liable for injuries to employees of the independent contractor due to defects in ways, works, machinery, plant, or tools, furnished by the employer or for whose use he is responsible. Such a provision occurs in the Workmen's Compensation Act of at least one State. The Common Law may in some cases hold him equally responsible without such a statute.

GENERAL STATUTE REQUIREMENTS FOR EMPLOYERS

To Secure Health and Safety. There are other statute laws in many States, affecting manufacturing and other establishments, for the purpose of better protecting the safety or health of employees; for guarding dangerous machinery; for inspecting elevators and steam boilers; for prescribing fire protection and means of escape; for improving sanitary conditions; for regulating work in tenements; for fixing maximum hours for work for women and children; and for many other purposes.

To secure greater safety in railroad operation there are requirements with relation to signals, brakes, couplers, clearances, frogs and guard rails, hours of service, number of crew on trains, and many others.

The statutes of each State must be examined and also the statutes of the United States, which in the case of railroads exercise important powers of regulation for safety under the so-called Interstate Commerce Act.

BAILMENTS

Definition. There seems to be some necessity for differentiating bailments from agency. Bailment occurs when personal property is transferred temporarily for some special purpose without transfer of title and with little or no authority vested in the bailee other than to care for the property.

Classification. Bailments are of two general classes: I. Gratuitous bailments, for the benefit of one of the parties to the bailment. II. Bailments upon consideration, for the mutual benefit of the parties.

In class I, they may be for the benefit of the bailor, where the property is gratuitously kept or carried, or worked upon; or they may be for the benefit of the bailee, when the thing is lent to him. In class II, they are pledges, as security for performing some obligation, for payment of a debt, or in contracts of hiring. There are four cases of hiring: the bailor may hire the bailee to do work on something; or to take custody of it (store it); or to carry it from place to place; or the bailee may hire from the bailor.

Consideration. As to consideration, which seems necessary under the law of contracts, in bailments for mutual benefit it is directly evident; in gratuitous bailments the deprivation of possession is evidently a detriment

to the bailor, which constitutes a sufficient consideration, while the viewpoint of the law seems somewhat stretched in holding that "the owner's trusting him with the goods is a sufficient consideration to oblige him to a careful management." The doctrine comes from the Civil Law; and the Common Law, from necessity apparently, finds means to harmonize it. Bailments occurring through the action of law, and some others, may exist without the mutual assent of the parties; here again the law of contracts seems not altogether applicable.

Delivery. For a bailment to occur, delivery and acceptance of the property are necessary, but these may be constructive instead of actual, or may come about by operation of law. A seller who holds goods after a sale (not a contract to sell) does so as bailee. Constructive delivery may occur where manual delivery is impossible. An officer holding goods under legal process is a bailee. Being in possession, the bailee may exercise rights against any third party but may not dispute the bailor's title.

Care. An important feature is the care demanded of the bailee. At one time the terms "slight," "ordinary," and "great" diligence were used, depending upon the apparent advantage to the bailee; but the better rule now seems to be that the bailee must exercise reasonable care "under the circumstances of the case," somewhat analogous to the rule as to negligence. The care and responsibility may be fixed by specific agreement. The bailee must in any case act in good faith and must return the property to the bailor at the termination of the bailment, which may occur by the act of the parties or by operation of law. The place of delivery ordinarily is the place where the goods have been kept. The bailment may sometimes be at the option of the bailor; it may be terminated by full performance, or by mutual agreement; the termination may come about by the death of one of the parties, or by a change in their legal status, or by destruction of the property.

CHAPTER IX

SALES

Definition. The term " sales " is in common use, in a technical sense, to cover sales of personal property. Where an agreement is made for the transfer of personal property from one party to another, the transaction may be a " sale "; it may be only a " contract to sell "; or it may be a " contract for labor and materials." The distinction is in many cases important. In the practical working of the Common Law, it has come about, with respect to sales or contracts to sell, that the law in different States varies appreciably. This may have been due to different business customs in different places, to a different point of view of the various courts as to what was right and just when the law took form, or in part to both causes. Whatever the explanation, the fact of difference is undisputed and is a serious handicap to the proper conduct of business.

Uniform Sales Act. Recently an important effort to improve the situation has resulted in what is known as " The Uniform Sales Act " prepared for the purpose of securing uniformity of law in the various States. In 1913 it had been adopted in nine States, and in 1917 in twelve or more.

The following definitions are there given:

"A contract to sell goods is a contract whereby the seller agrees to transfer the property in goods to the buyer for a consideration called the price.

"A sale of goods is an agreement whereby the seller transfers the property in goods to the buyer for a consideration called the price."

Distinction between Sales and Contracts to Sell. The important difference between a sale and a contract to sell is here outlined; it lies in the effect. A sale is substantially a conveyance; the buyer acquires title and the right to possession of the specific goods, sometimes even in the hands of a third party, and any subsequent gain, or loss, or risk, is the buyer's.

With a contract to sell, the buyer does not acquire the right to the specific goods; his remedy against the seller for non-delivery or non-compliance with the contract is confined to a suit for money damages in a court of Law; the risk is the seller's unless otherwise fixed by specific agreement. In some cases the right to the goods is the most important consideration;

in others, the risk is primarily to be considered and a contract to sell may be more to the buyer's advantage.

The terms "bargain and sale" and "contract for future sale" are sometimes used instead of "sale" and "contract for sale."

Labor and Materials. It is sometimes difficult to distinguish between contracts to sell or perhaps from sales on the one hand, and contracts for labor and materials on the other. The rule or standard by which to distinguish between them differs in different States. In this connection, immediate delivery was at one time considered essential for a sale but is no longer insisted on. One rule provides that it is not a sale or a contract to sell if the use of labor in producing is a part of the consideration; another insists that where material to be worked upon is the seller's, he is working for himself and not for the buyer, and that it is a contract to sell or a sale; another takes the view that where the material is in form requiring work before delivery, it is a contract for labor and materials; another test rests upon the question whether the labor is the essential ingredient; still another which has found favor in several jurisdictions, looks to see whether the article ordered is such as the seller produces for the market in the ordinary course of business, or whether he has taken a special order for it. To distinguish correctly, one must know the law of the State in which the transaction occurs, and much of this is Common Law to be hunted out from the decisions of the courts. No general rule for guidance can be laid down here, however desirable it may seem. An important feature involved is that the Statute of Frauds has no application in the case of labor and materials, while it does apply to contracts to sell.

Basis is Contract. Whether a transaction is a sale, a contract to sell, or a contract for labor and materials, the basis is that of contract. A sale is sometimes called an "executed" contract, but valid objection to this is made that in case of a sale there are often things yet to be done, such as delivery by the seller or payment by the buyer.

At the outset four important questions arise: first, has there been any contract? second, if so, was there a sale? third, was there merely a contract to sell? fourth, was the contract for labor and materials?

Contract Essentials. If there was no contract, the matter ends there. It should be remembered that for a contract to exist, the four essentials are necessary; mutual assent, competent parties, consideration, definite and lawful subject matter. It should further be borne in mind that the Statute of Frauds requires that certain contracts shall be in writing, without which they are unenforceable and might as well not exist.

Involuntary Sale. While a sale, as a contract, requires mutual assent to its terms, what has been called an involuntary sale sometimes occurs where a court grants money damages for goods taken away from a person

in some way (the goods not being returned). Here an agreement to pay is apparently implied; the doctrine differs little if any from that of implied contract referred to in a previous chapter.

Important Features. Many interesting points are involved in the law of sales. Among these are possession, title, delivery, receipt, and acceptance; the rights, duties, and remedies of the parties and of third persons; and the risk which is a matter of importance to be considered.

Sale or Contract to Sell. In general, the seller passes, or engages to pass, the general property in a thing and to deliver possession for a price paid. Payment and giving of possession may take place at the same time or at different times. Whether the transaction in a given case is a sale or merely a contract to sell, is not always easy to determine.

When two persons negotiate and agree and the price is paid, delivery is made, and receipt and acceptance are accomplished, the case is clear; a sale is effected. When the price is not paid, and actual possession is not at once secured, the case is less simple; where the terms are clear, no difficulty results; but where inferences need to be made as to time of performance or otherwise, even judges have not always been sound in their opinions. A contract for future delivery may sometimes be a sale rather than a contract to sell; the law looks beyond the mere language to distinguish between a present sale and a contract for future sale; the intent, however determined, controls. The courts of some States, however, refuse to recognize a present sale when delivery and payment are to take place in future.

Ordinary Rule. The rule ordinarily is that a sale is confined to ascertained, existing goods, the property of the seller, title to which may pass at once; but for goods not in existence, or to be ascertained, or to be acquired or manufactured by the seller, the transaction commonly is a contract to sell. Natural products or expected increase, as offspring of animals, future crops of land, wages to be earned under an existing contract, or a mortgage resulting from an existing contract, however, may be the subject of a present sale; the title is potential, ripening into actual on the occurrence of the contemplated result. It is a sale to the extent that a later sale to a third party will be set aside.

Specific Goods. An agreement for the sale of specific goods is *prima facie* a sale, vesting title in the buyer and the right to the price in the seller, although future delivery is provided for as to time or place. When, however, the seller engages to do something further to put the goods into deliverable state, the presumption is that passing of title is to be postponed; in this case notice to the buyer of readiness for delivery seems to be required in some States and not in others, and a specific agreement as to this seems desirable at the time when the transaction is entered upon.

Immediate Delivery. On the other hand, there may be only a contract

to sell (rather than a sale) where goods are subject to immediate delivery; the question involved is whether title passes before delivery. The intent should in some way be made clear; and the opportunity for misunderstanding as to an oral agreement makes it desirable that there should be some writing to make clear what is intended; the interchange of letters in general business procedure serves not only to constitute a valid contract, but also to clearly define its terms; for instance, whether a sale or a contract to sell is intended.

Ascertained Goods. For a sale to occur, the goods must not only exist, but must be specific or ascertained, or definitely ascertainable. An agreement to sell and to buy a cow from a herd is not sufficient; some means must be provided to determine which cow; the cow "which the buyer shall select," however, is ascertainable.

Weighing, Measuring, Testing. Where weighing, or measuring, or testing is necessary to determine the price, or to identify or make certain the goods, the reasonable rule appears to be that there is no present sale and title does not pass until this is done and notice is given to the buyer. The seller then is impelled to prompt action in order to transfer the risk. The rule, however, is variable in the different States; the Uniform Sales Act regards the transaction as a sale. Weighing, when necessary, is sufficient even though computation may be further required.

In some States, if the goods are destroyed by fire or otherwise before weighing, the seller bears the loss; there has been no price fixed. In other States, the more general rule prevails that, where title has passed except for measuring, the buyer bears the loss for an amount to be determined as nearly as possible by other means.

Designated Quantity. When an agreement is made to give and to take a designated quantity from a mass of uniform kind and quality, in the United States with the exception of a few States, there is a sale; in England, not. The Uniform Sales Act regards it as a sale. This appears to be good law; the buyer surely gets what he wanted and agreed to take; no selection or discretion could bring about a different result. In the case of grain elevators, it is the accepted custom that an owner deposits a certain amount of grain, is given a warehouseman's receipt which he sells, and the purchaser later receives the specified amount of grain although the entire contents of the elevator may have changed more than once during the interval. There has been a sale in this case.

Known Quality. Where goods ordered are not a specific article, they must nevertheless be such goods as the buyer ordered and as the seller agreed to deliver. There must, however, be mutual assent; there must be an appropriation by the seller of the articles contracted for, and this must have the assent of the buyer. Often, in the course of business, this

assent may have been given prior to the appropriation; in ordering goods whose quality and character are known to the buyer, such assent is already given. Until the seller has set aside or appropriated the goods to the buyer, there is, however, no sale. A withdrawal of assent before appropriation will prevent a sale, although the seller may have a case against the buyer for breach of contract.

Future Goods. For unascertained or future goods, the buyer does not secure or assume title until after approval or acceptance, perhaps delivery. The goods must be goods agreed upon, in some cases a rather specific article; in orders for one of a specific class, the intent of the purchase must be covered. Where the order is filled according to agreement the buyer has already assented; this is implied.

Sale on Performance. A contract to sell may become a sale upon the performance of certain acts. A contract to sell on approval is not a present sale; but if goods not approved are held somewhat unduly, some States hold that the title has passed under implied approval. In some States, however, the contrary view prevails. Goods sent "for sale and return" are in this country at the buyer's risk, while the return, if made, must be within a reasonable time; otherwise it becomes a sale.

Cash Sales. In many States, in the case of "cash sales," the buyer is not entitled to possession without payment of cash, and where no time is agreed on for payment, delivery and payment are held to be concurrent acts, and the seller may refuse to deliver without payment, and unless payment is immediate the contract becomes void. The law is variable, however, in different States. In most States a contract for the sale of specific goods for cash is a present sale unless general custom or custom between the parties indicates otherwise.

Conditions. Both contracts to sell and sales may be made subject to conditions; these conditions may be expressly agreed upon, or they may be implied, as in other contracts. It is very common to make sales and to give possession even though title is retained by the seller until payment of the price is made; sometimes this condition is expressed, sometimes implied. The term "conditional sales" is commonly applied to such sales, special reference to which will be made later. Purchases C.O.D. in most jurisdictions appropriate goods to the contract, the title passing subject to payment on delivery. In the case of F.O.B. sales, title passes when delivery F.O.B. is accomplished. Where delivery at a particular place is specified, delivery at that place is perhaps the essence of the contract, and before delivery there is only a contract to sell.

Right of Disposal Reserved. With a contract to sell, the seller may reserve the right of disposal of the goods until conditions are fulfilled; for instance until the purchase price is paid, even if the goods have been

delivered. Sometimes, in this case, under unusual circumstances, the seller may impose a new condition; this, however, he does at his peril, at the peril of suit for breach of contract. Sometimes he ships goods under a bill of lading deliverable to himself, or agent, or order; sometimes, even when deliverable to buyer, the bill of lading is retained by seller until payment is made; or the bill of lading has a bill of exchange or draft for the price attached and is sent to an agent or a bank for presentation or collection. In this case the buyer does not secure title until he pays cash or accepts the bill or draft (whichever is required) unless in some way a contrary intent appears. It should be borne in mind that the point involved is the right to possession; although the buyer may be entitled to damages for breach of contract, yet, unless title has passed, a third party buying from the seller will acquire title and be secure in it in the absence of fraud on his part, while a third party who purchases from the buyer may be deprived of the goods.

Perished Goods. Where goods have perished before the agreement was made, there is no contract, no sale; where part only have perished or deteriorated before the agreement, the buyer is allowed to exercise an option, either to hold the contract void, or to pay for so much as is transferred at the agreed rate of price if divisible, or the full price if not divisible. In some cases where the full price would be out of the question, the buyer might dicker with the seller, and to better advantage before deciding to hold the agreement void. Any resulting agreement should constitute a new contract and be clear in its terms.

Choses in Action. While the word "goods" is ordinarily interpreted as the equivalent of the English term "goods, wares, and merchandises," there is a tendency in the United States to extend it to other kinds of personal property, what lawyers call "choses in action" being sometimes specified; under this designation are included promissory notes, bills of exchange, debts, policies of insurance, and claims under which a suit might be brought. The rule common in many States is that accounts or other things not strictly deliverable are not subject to sale; there is divergence of law upon this point, however, in the different States. Money, particularly in forms specially in demand, will often be considered goods; ordinary, current forms of money, usually not. The Uniform Sales Act excludes money as "goods." In Virginia, in 1910, a case occurred in which it was held that where electricity was delivered into the wires of the consumer, title passed and a sale resulted.

Property Connected with Land. While the law of sales deals only with personal property, it should be borne in mind that some articles connected with real property are held to be personal property or goods. The products of a mine when later severed, ice when later formed on a pond,

crops when harvested, or trees when they have been cut, are personal property or goods, and are readily subject to a contract to sell, perhaps to a sale. Fixtures in a house, or even buildings to be removed and delivered to the buyer, or removed by him, are also personal property.

Price. For a sale the price commonly is in money, and in some States this is essential; in others it may be in any personal property; the Uniform Sales Act says "in any personal property." The discharge of an existing indebtedness is sufficient. The price need not be directly stipulated; if it is capable of determination it is sufficient. This determination may be dependent upon some future event, as on the verdict of a jury, or on the valuation of a third person. A custom in general use or well maintained between the parties may, for instance, establish the market price as the sale price; or the custom between them may imply a reasonable price, which in many cases will resolve itself into the market price. If the price be finally determinable and certain, it suffices.

STATUTE OF FRAUDS

Statute of Frauds. One section of the English Statute of Frauds provides that "no contract for the sale of any goods, wares, or merchandise for the price of £10 or upwards shall be allowed to be good, except the buyer shall accept part of the goods so sold, and actually receive the same, or give something in earnest to bind the bargain, or in part payment, or that some note or memorandum in writing of the said bargain be made and signed by the parties to be charged by said contract, or their agents thereunto lawfully authorized."

Acts in substantial accord have been passed by all or nearly all of the States, but instead of £10, various sums have been specified: $40, $50, $100, and even $2500 are actual figures. Apparently the view has prevailed in some States, that under modern conditions, business is better served by fixing a higher limit than $50, and $500 is now not uncommon as the price fixed.

Not Enforceable. The Uniform Sales Act uses the words "shall not be enforceable"; the sale or contract to sell is thus not illegal; it doubtless may be morally binding; the courts, however, in view of this statute, cannot give time to consider it.

Several Articles. Where several articles are bought at one time, is the transaction one sale or several sales? The answer often determines whether the price is large enough so that the Statute of Frauds applies. Where the sale is per unit, whether bushels of wheat, or a consignment of shovels, or wheelbarrows, or wagons, the case seems clear; with a bill of goods of various sorts ordered at one time and to be delivered together, it seems less

clear; but the nature of the transaction, the business custom between the parties, or the intent, may often readily indicate a single sale or contract to sell. Where a man ordered goods in part for his home, part for his farm, part for his place of mercantile business, the sales would probably be held to be separate.

Form of Memorandum. As to the memorandum in writing to bind the person charged, a letter, receipt, invoice, statement of account, entry in books, or memorandum of almost any kind will suffice. It must be sufficiently certain to indicate the transaction, including parties and the price, if any, agreed upon. It must be signed in some way, by initials, mark, code sign, rubber stamp, sometimes by print. The signature may be that of principal or agent, and in auction sales the auctioneer is recognized as the agent of both parties.

Part Performance. Part payment, or both receipt and acceptance of part of the goods, make a writing unnecessary. Receipt and acceptance are by no means synonymous. Following a transaction, if goods are delivered at a specified place or to a designated person, ordinarily the goods are delivered by the seller and received by the buyer. The receipt of a bill of lading or other document of title may serve the purpose of receipt of the goods just as the delivery of the deed of real property serves as delivery of the property. A common carrier may be and often is the agent of the buyer to receive goods, but he has no power to accept.

Acceptance. Acceptance of the goods is required, not merely of the offer; and this may occur before, after, or in connection with the receipt. Goods may be accepted while in the hands of the seller at the time of bargaining, and receipt be a further requisite; inspection may be necessary or allowable, and approval may thus come later than receipt; on the other hand, the whole transaction may be concluded at the time of negotiation, and removal by the buyer be the only duty to be performed. Some definite act of approval is often necessary, and may be sufficient; any dealing with the goods, as re-selling, implies acceptance.

Both receipt and acceptance are questions of fact for the jury to determine and the burden of proof of acceptance is on the seller.

DUTIES OF SELLER

Title and Possession. It is the duty of the seller, ordinarily, to confer title and give possession, unencumbered title and quiet possession; but not when there was an intent otherwise, perhaps by express exemption; and not in the case of administrators, executors, and trustees who are not expected to warrant title. There are sometimes conditions which go to the whole consideration, the essential terms of the contract, and where

non-fulfilment brings liability on neither party. An example is where goods are to arrive in a certain vessel which does not arrive; or when appraisal or approval is to be made by a designated party who refuses or neglects to act; or perhaps where goods are to be satisfactory to buyer. In the last case some courts uphold such a provision, others not.

Specific Article Furnished. When there is a sale of a specific article, this must be furnished; but where each has opportunity to see and judge, delivery and title to a specific thing agreed to is enough, although it was not the article the buyer thought it was.

Ordinarily, the remedy for a breach of contract on the part of the seller is a suit at Law for damages; a suit in Equity will be allowable only when a specific article may properly be held essential, and where money damages are inadequate.

Specific Characteristics. When there is an agreement to furnish an article with specified characteristics, that must be furnished, and this applies to contracts to sell as well as to sales. A sale of goods with specified characteristics, or description "with all its faults" is not fulfilled unless those characteristics are present, but is fulfilled if they are present, although the goods are imperfect in some way; defects of quality are "faults," those of design bring liability upon the seller.

When the sale is by description and sample, the purpose may be to fix quality, or design and fitness; the determination of fact as to which was the purpose may often be difficult. Explicit understanding in advance will prevent controversies.

Suitable for Purpose. When an article is to be suitable for a given purpose, the essential feature may be implied, and not in all cases expressly stated; the seller must, however, in some way know the requirement and purpose. In buying, reliance is often placed upon the skill and judgment of the seller, especially when there is no opportunity for preliminary inspection. The skill and judgment of a manufacturer may be relied upon, however, only for defects which might have been detected; for latent defects, the manufacturer or dealer generally is not responsible. When a buyer specifies a particular article under its trade name, there is no engagement as to its fitness for some special purpose; nor is there when the buyer specifies materials and methods.

The goods must also be in salable and merchantable condition, at least for shipment and perhaps when delivered. Provisions must be fit to eat as food, and statutes or ordinances often regulate this.

Quantity. Quantity may be of the essence of a sale, and a less amount rejected; a larger amount also, except that a moderate excess to secure compliance may be reasonable if no extra charge is made; the intent controls. When "about" qualifies quantity, a reasonable variation only is

allowable. Partial delivery under an entire contract does not satisfy the seller's obligation.

When a specific lot is sold, estimated in quantity, the lot is the essence, the quantity subordinate. A cargo of any specified vessel is a full cargo; without specification of size or quantity, the full cargo of a vessel engaged in that particular trade. It is wise in such transactions to specify in some way the amount required, approximately at least, for courts commonly construe such a sale or contract to comprise the entire cargo.

Goods sold must not be mingled with other goods to the buyer's disadvantage, unless according to custom or usage between the same seller and buyer. Inspection may sometimes require use; it must be reasonable use in the custom of the trade. Here clearly is an example where receipt may not be equivalent to acceptance. The agreement may, or may not, require acquisition of title before inspection; if title be acquired, the remedy after inspection will be a claim for damages.

Delivery of Possession. The duty of the seller to give possession, whether express or implied, is not equivalent to agreement to send. How the seller gives possession depends on circumstances and custom. The place of giving possession is often the seller's place of business, store, factory, farm, or mine; sometimes the place will be expressly agreed upon; sometimes the custom of the trade controls. Where there is transfer of possession without change of location, sometimes a vendor's lien attaches; sometimes the seller acts as bailee, perhaps being paid for storage.

In some cases ordinary delivery is impossible, as with logs in a boom. In this or other such cases, putting goods in the control of the buyer suffices. A cargo is delivered by its bill of lading; a key to a storehouse is delivered to buyer; with goods in a public place where locality is not an element of possession, any act of delivery satisfies. In the case of bulky or ponderous goods, where the seller leaves the goods to be removed by the buyer, there is delivery and receipt.

The time of delivery must be reasonable both as to date and hour and may be expressly fixed; when specified, it is not a collateral agreement, but essential.

Future Payment and Delivery. A sale may be made where both future payment and future delivery are agreed upon; frequently delivery depends upon, and at once follows payment. The time of payment may be specified and is then regarded in the United States as an essential term; this is the prevailing rule. It is often arranged that payment and delivery shall be coincident.

Sometimes delivery is by instalments; in such case failure to deliver the first instalment constitutes a breach and gives the right to avoid the contract; a later breach gives the right to repudiate the unperformed part;

but the rule as to this varies as in many other matters touching sales; a failure to pay promptly for an instalment may sometimes be explained.

Delivery to Carrier. Where the seller agrees to deliver goods, putting them in the hands of a carrier does not effect change of possession; but when the agreement is to deliver to a carrier, the latter is then the buyer's agent to receive the goods and delivery to the carrier is sufficient. If a specific carrier is designated, delivery must be to him. In the case of delivery F.O.B. the buyer is given the chance to specify means of transportation. Goods must be correctly addressed, and properly prepared for transportation, the method often being fixed by custom; the seller must comply with the carrier's regulations in the interest of the buyer. In some States, the seller must notify the buyer of readiness for shipment to give opportunity to insure; in some States, the custom between dealers controls. Delivery to a warehouseman follows the same rule as with carriers.

Title Acquired by Buyer. The buyer acquires such title as the seller has, but nothing more. Except by action of law, title can pass only by consent of the true owner unless the latter has conferred some apparent right on the seller. An innocent third party who buys from the original buyer in good faith for value, will be protected against an original seller who neglected to enforce his rights against the original buyer. A creditor receiving goods in payment for a debt, however, has often been held not to be a purchaser for value, but the rule as to this varies; the same is true of goods held as collateral. A buyer has a duty to exercise some diligence to inquire into the title of the seller; fault or neglect on his part leaves him subject to loss. Simple possession without apparent authority is not enough to give the seller the right to sell.

Notice by Seller. In the case of " conditional sales," where the original seller retains complete or partial title to an article sold to a vendee, as we may call him, the laws of many States place a burden upon the seller to provide suitable notice to any new buyer. The new buyer, in this case, may acquire all of the original seller's title if he performs all of the conditions before any default by the vendee.

The notice required of the seller may be by recording the contract of conditional sale, or by filing a copy in a specified office; and sometimes a witness, sometimes an acknowledgment, is required before the contract will be recorded or filed. The requirements are so conflicting in the various States that the advice of a competent attorney conversant with local laws and customs is substantially a necessity where the interests involved are important. The proprietor of a patented trench-digging machine sells to a contractor of moderate financial ability, expecting payments from the profits of the contract. When the contract is finished the

contractor wishes to sell the machine. The new buyer ought to have reasonable protection, and if he examines the records for recording or filing, has exercised reasonable diligence. The proprietor, the original seller, has not been diligent if he fails to record or file his contract in compliance with local requirements, and he loses his right to the machine.

This statement appears to put the matter right morally. The law, however, specifies what is necessary to be done, and in some States makes it criminal to unlawfully dispose of goods held under conditional sales. Whether he be seller or buyer, the engineer or engineering contractor should know the law in the State in question. In some States, there are "Factor's Acts" defining the legal status of goods in the hands of factors or agents, looking to the protection of third parties. In some States, possession is sufficient to give legal title against another in similar position without title.

WARRANTIES

Character of Warranty. An important subject connected with sales is that of "warranty," which is differentiated from a "condition" in that the latter goes to the substance of the contract and a breach vitiates it, while a warranty is a collateral undertaking or stipulation for the existence or truth of some fact relating to the thing sold. A failure or breach of the warranty does not void the sale; the buyer may hold the goods, and the seller have the right to the purchase money, subject, however, to the damages to which the buyer is entitled for the breach of warranty.

The warranty need not be in express terms; in determining whether a condition or a warranty, the best doctrine appears to be that technical and artificial rules shall give way to the intent of the parties as gathered from the contract, although this rule is not fully accepted.

Word not Essential. The word "warranty" is not essential; any statement of fact which the buyer relies upon as a material inducement serves the purpose. Statements of opinion, or puffing statements are held not to be statements of fact. Statements of value are opinions; but statements of selling prices are facts. Whether a sale by description involves fact or opinion is held one way by some courts, differently by others. Whether the seller's statement of fact is a warranty, depends upon the natural effect upon the mind of the buyer; if the seller declines to warrant, he saves the situation. The warranty need not, however, be the sole inducement in the sale.

Implied Warranties. Warranties may often be implied. There is an implied warranty of title, and engagement that the goods are, or that the goods when and if delivered, will be the property of the seller, free from encumbrance in favor of any third party, unless the contrary was

known to the buyer at the time of sale or of contracting to sell; also a guarantee of quiet enjoyment. In case of any disturbance of his title, a lawyer needs be consulted; the laws in different States vary as to status and remedy.

Goods by Sample or Description. In the case of sale by sample there is an implied warranty that the bulk shall correspond with the sample in quality and be free from defects not apparent on the reasonable examination previous to acceptance. Where goods are sold by description, there is an implied warranty that they answer the description; if by sample as well as description, the goods must conform to both sample and description. While reference has been made earlier to sales by sample and description, it should be understood that while goods may fail of acceptance if they are found not to be what was ordered, it often happens that the facts may not be at once obvious or discoverable in the ordinary course of business, and the implied warranty protects the buyer when the failure becomes evident, if the buyer has exercised due diligence.

Purpose of Article. In a similar way where the purpose of the article is known to the seller, whether a manufacturer or not, and the buyer relies upon the skill and judgment of the seller, there is an implied warranty of the fitness of the article for the purpose. In the purchase of machinery this is of importance, and the engineer may be interested, sometimes as buyer, sometimes as seller. Whether reliance was placed upon the seller or manufacturer and the purpose understood or properly conveyed, may sometimes present difficulties from the standpoint of evidence.

The custom and usage of the trade may provide such a warranty. There is an implied warranty that goods are of merchantable quality, and the warranty in some cases may extend to the future condition of the article. The warranty does not extend to sub-purchasers, and this is sometimes of importance.

On General Sale. Where articles on general sale are ordered by their customary or trade name, there is no such warranty, nor is there when the buyer has examined the goods, if such examination should have revealed the defect or unfitness; but otherwise if expert examination is necessary or if the buyer's inspection or examination was understood not to cover matters concerning which reliance was had on the seller's skill and judgment.

Remedy for Breach. While some States allow rejection and return of goods in case of breach of warranty, the rule is generally otherwise. The remedy is a suit for damages, and the measure of damages is the difference between the value of the actual article received and the value of the article as warranted.

In case of fraud, rather than breach of warranty, the contract will be void.

DUTIES OF BUYER

Title; Acceptance. Sometimes immediate title to goods seems desirable to the seller, but sometimes otherwise. The same is true as to the buyer. When the seller makes a tender of the goods, it is the duty of the buyer to accept and to pay the price on the terms agreed to; it is his duty to take the property at the agreed time, and time is often of the essence of the contract.

Acceptance gives title and cannot be revoked; in some States the buyer, however, may have a remedy for damages even after acceptance; this generally for defects not apparent at acceptance. In some cases acceptance of part is acceptance of all; it is a matter of intent, however.

Inspection. An opportunity, time, and place for inspection may be agreed upon; if there has been no specific agreement there must be a reasonable opportunity both as to time and place. Commonly the place of delivery is the place of inspection.

Objections; Delay. If formal and deliberate objections to acceptance in certain respects are made, other objections are held to be waived. If objections prove groundless, the title is then the buyer's. Rejection, if made, must be prompt; delay may be equivalent to acceptance. If goods are rejected the buyer is not under obligations to return the goods. When the buyer is to call for the goods, he must act within a reasonable time; if not, the seller may, at his option, at least rescind the contract. When title has vested, it is the buyer's duty to take the goods away. There is some question as to the remedy if he fails to do so.

Failure to Accept. A failure to accept goods when duly tendered gives the seller a right to damages, and in some States a right to the price from the buyer, the seller holding the property as trustee for the buyer while the title passes to buyer; a suit may be brought at once after the buyer repudiates his contract.

The measure of damages for non-acceptance is, ordinarily, the difference between the contract price and the market price at the time and place of delivery, if the latter be the lesser, unless an abnormal market price makes this improper.

Where there is a breach of contract to accept articles in process of manufacture, the measure of damages is the estimated profit on the completed articles less the profit on the incomplete article; a loss is algebraically a minus profit. When material has been secured but no work has been done, the difference between the estimated cost and the price is the measure.

Seller's Lien. Sometimes the seller has what is called a seller's lien on goods sold. Since it is a misnomer for him to have a lien on his own

goods, title must have passed, the goods must be in the seller's possession or equivalent control, and the price must in some way be due, in whole or in part, except in case of bankruptcy. Possession of part only of the goods gives a lien on that part. A seller's lien may be in favor of a factor or agent and enforced by him as well as by his principal.

The lien may be waived, whether unwisely or not does not matter; sometimes this is done by giving credit, sometimes on the guaranty of some third party. Even in these cases, however, insolvency of the buyer revives the lien, and it is revived if the term of credit expires. If at any time the buyer tenders the price, the lien ceases.

Stoppage in Transit. In a somewhat similar way, the seller has the right of stoppage in transit; the right, fundamentally, rests on "the custom of merchants"; it is now well established. It is an unusual sort of right. It attaches after the seller has delivered the goods to the carrier, and thus parted with possession; it can be exercised only on the insolvency of the buyer. This is not necessarily insolvency in the technical sense, equivalent to bankruptcy, or a near equivalent. Insolvency here means inability to meet debts as they come due in the ordinary course of business. When it is clear that the buyer will be unable to pay when the price falls due, the right of stoppage in transit may be exercised.

The right ceases when the buyer, the consignee, obtains possession; and an arrangement between the buyer and the carrier by which the latter holds the goods as warehouseman, constitutes a control by the consignee which serves the purpose of possession; sufficient so that the right ceases.

Superior to Right to Attach. The seller's right of stoppage in transit is held superior to the right of creditors of the buyer to attach the goods; their right is no better than the buyer's; the same is true of a re-sale by the buyer during transit; the purchaser has no better right than the original buyer. But if the seller transfers to the buyer a bill of lading, the latter may then convey by re-sale a title better than the original seller then has; the delivery of the bill of lading has somewhat of the quality of a delivery of the goods, enough at least to protect the third party if the goods were transferred in good faith and for value. Such transference is also effective when made as a pledge or mortgage for security; the extent of the right which the original seller retains in the goods is then limited to such interest, if any, as the original buyer still retains in the goods pledged or mortgaged.

Termination of Transit. The termination of transit puts an end to the seller's right of stoppage, and it is not always a simple matter to fix the termination. The seller's right of stoppage applies only to a transit caused by the seller. A later transit caused by the buyer may follow the termination of the original transit. This original transit is ended when the goods

reach the buyer's possession or are in an equivalent control by the buyer. Delay by the carrier, or refusal to deliver, prolongs it; the end of the journey with the carrier does not terminate it in all cases, for placing the goods in a warehouse in the name of the seller, or subject to his order, leaves them still under his control. If the goods are placed in the name of the buyer, however, the transit is ended. In a bonded warehouse, it is a question of fact and status whether the goods have passed from the control of the seller; the courts tend to favor the seller in this matter. The buyer may tender performance of his obligation and thus terminate the right of the seller.

Exercise of Right. The right of stoppage in transit may be exercised by the seller by taking actual possession, by changing the consignment of goods, or by notice to the carrier or other party in temporary control of them. If the seller exercises his right of stoppage in transit, he must pay the costs of transportation of the goods in question, including redelivery if he orders this.

The exercise of this right simply restores the goods to the possession of the seller, subject to such further action as he may deem proper, or subject to tender by the buyer. In the case of perishable goods, the seller must take action to protect the interests of the buyer, and sell at once without notice; and he may do the same with other goods if the buyer is already in default. Authorities differ as to whether, under other circumstances, notice to the buyer is necessary before re-sale. It is the part of wisdom to be on the safe side and to give notice of time and place of re-sale, if practicable, and also to have at hand evidence as to the facts which justified the stoppage in transit. An entirely legal re-sale gives good title.

Delay by Buyer. Unreasonable delay on the part of the buyer, rejection of goods which conform to contract, refusal to receive goods after title has passed, all justify a rescission of contract by the seller, and may thus give the seller his right of stoppage in transit. The seller may rightly prefer to retain the goods rather than to re-sell at once, as this leaves him the remedy of damages against the buyer. Sometimes the buyer rejects goods which really conform to contract, refuses to receive them, or takes measures to prolong transit, doing this to protect the seller rather than other creditors, and the courts have sometimes commended such action.

THE RISK

Relation to Title. The risk of loss or damage normally goes with the title; but, by agreement, the title and the risk may be separated. In general, however, unless otherwise agreed, the risk is in the seller until the

title is transferred to the buyer, after which the risk is the buyer's whether delivery has been made or not. The question of title often hinges on delivery. When delivery has been delayed, the rule differs in different States; in some, the party at fault suffers the loss, in others not. In many cases, title passes on acceptance of the goods and receipt is not necessary; in other cases, receipt also may be specified. Shipments specified to be " at buyer's risk " are, nevertheless, held to be at seller's risk if the latter is also the shipper and if improper methods of shipment or defects in cars or vessels are the cause of the damage; but not if he is the seller only, without control over the shipment.

Conditional Sales. In the case of conditional sales, if title is reserved in the seller as a matter of security, the risk is the buyer's. The seller has no further duty, but has only to receive the price; the buyer has received his full consideration under the contract. In effect, he has acquired title, and mortgaged back to the seller. This rule, however, is not adopted in all the decisions.

It is wise, when possible, to have the terms of the agreement or sale make clear where the risk is to lie.

Need of Uniform Sales Act. As has been shown, the laws of different States vary in their application to sales, and the desirability of the adoption of some Uniform Sales Act seems clear, but the adoption of the present act of that name is not yet sufficiently general to allow its use in this chapter as a statement of the law of sales at the present time. In view of this conflict of laws, it is important to note that the interpretation of the sale or contract will be made under the laws of the State where the contract was made, rather than the State where the action is brought, unless otherwise stipulated.

CHAPTER X

NEGOTIABLE INSTRUMENTS

Terms Used. The term "commercial paper" has sometimes been used for a title as an alternative for "negotiable instruments," but the latter is the term more generally accepted by lawyers. Considered together, a better view-point of the subject is secured than by the use of either alone.

BILL OF EXCHANGE

Description. If a merchant *A* in London buys goods from, and owes money for them to, *B* in Paris; and if *B* in Paris, at the same time, owes money to *C* in London; it is very clumsy for *A* to send a bag of gold to *B*, who at once sends back most of it in a bag to *C*. It is much simpler for *B* to write to *C*, arranging for him to go to *A* and get the money which *A* owes *B*, or part of it.

Such a transaction in time became standardized into the "bill of exchange," a request, or rather an order, from *B* to *A* to pay a sum named to *C*, charging this sum to the account of *B*.

Form of Bill. A bill of exchange may be in the following form:

$275^{00}/_{100}$ New York, Jan. 2, 1917.

Sixty days after date pay to the order of

Alexander Winchester

Two Hundred Seventy Five $^{00}/_{100}$ Dollars

value received and charge the same to the account of

Henry Jenks.

To William Ames,
540 Weybosset Street,
Providence, R. I.

The person who executes the bill, Henry Jenks, is called the drawer; William Ames, the drawee; and Alexander Winchester, the payee.

Acceptance. The routine established is for Alexander Winchester to take the "bill" to William Ames for his "acceptance." If the latter accepts the bill, he signs his name to that effect on the bill and this amounts to an acknowledgment of obligation to Henry Jenks, together with an agreement to pay Alexander Winchester or order at the specified time.

Form of Acceptance. The form of acceptance may be:

Accepted Feb. 9, 1917.
Payable at 540 Weybosset Street,
William Ames.

Any other words, with signature, are sufficient if they show the intent.

Negotiation. In the course of time the function of the bill of exchange was extended. Alexander Winchester owed money to Philip Clark who did not care to lug around coin; so Winchester turned the bill over to Clark, indorsing it to him; Clark perhaps indorsed to another, and the bill of exchange as a negotiable instrument was a great boon in business transactions.

Use of Bill of Exchange with Bill of Lading. A bill of exchange is now used mainly in connection with a sale of goods. Bills are often in duplicate, and sent by different mails. Sometimes the bill is sent attached to the bill of lading to some third party (perhaps a bank) who advances money on it, looking to the bill of lading in part for security. The carrier has no right to deliver goods without presentation of the bill of lading.

Sometimes the two bills are sent together to some one as agent for the drawer (perhaps again a bank) who is instructed to deliver the bill of lading when the bill of exchange is accepted, dependence being thus placed in part on the credit of the drawee, the consignee, and in part on his acknowledgment of his obligation to pay.

CHECKS

Checks. Later "banks" were established and merchants "deposited" money in them and kept their accounts sufficiently large so that they were drawing on them constantly, and the bill of exchange took a simpler form in the well-known "check" which is now accorded a character of its own, somewhat distinct from the bill of exchange. Debts were paid by checks and these were first sent to the banks for collection, but now they go at once into the depositor's account as the equivalent of cash. The check often goes through various hands before reaching the bank on which it is drawn, each holder indorsing it to the next holder; it has become a negotiable instrument.

Indorsement. The nature of indorsement is this. If a bill of exchange, or note, or check, has come into the hands of some man who is transferring it to another, he signs his name across it, commonly on its back. By this act of signing, unless there are added words of qualification, he authorizes its transfer to another who is often specified; if he delivers it, he does transfer it. He also agrees by thus signing his name that he will pay it if the drawer or maker does not do so. His indorsement is a protection to later holders; any earlier indorser is a protection to him. His act of signing is an "indorsement" and he is an "indorser."

A very common form of indorsement is:

Pay to the order of Philip Clark
Alexander Winchester

PROMISSORY NOTES

Description. A merchant, manufacturer, or publisher finds that at certain times of the year he must make extensive payments for material or labor, while his sales and the payments for them come at a later time. It is good business policy for him to borrow money from one who has it available, giving his "promissory note" for it, promising a future payment. Nowadays his borrowing is from a bank as a rule. The payment for materials or goods may, however, be directly made by a "note" to the seller, and in such case the payee of the note may take it to a bank and in effect sell it to them, indorsing it; it may go through several hands as a "negotiable instrument" with a series of indorsements.

Form of Promissory Note. The form of note may be:

100\frac{00}{100}$ New York, *Jan. 2, 1917.*

Thirty days after date I promise to pay to the order of *Benjamin Holliday*

One Hundred $\frac{00}{100}$ Dollars

Payable at *First National Bank of Boston*

Value received.

Hiram Weeks

or some similar form. Hiram Weeks who executes the note is called the maker and Benjamin Holliday the payee. The time of payment is sometimes "on demand" or on some specific date as "on May 1, 1917."

The use of checks and of promissory notes is widespread, and the use of bills of exchange is also sufficiently important so that the practice and rules of law connected with their use must be adapted to the necessities and convenience of business.

Law Merchant. It is sometimes stated that the law of negotiable instruments follows the " Law Merchant " rather than the Common Law. The distinction is a technical one except to lawyers; in the case of negotiable instruments the customs of business among merchants and the necessities of its convenient conduct formed the basis upon which finally grew up a series of decisions under the Common Law rather than apart from it. These decisions must be looked to in determining what the law is and the same courts pass upon it. It has sometimes been stated that the Law Merchant has been " grafted " upon the Common Law.

Some Distinctions. Promissory notes, or bills of exchange when accepted, are contracts, but of a special kind which the Common Law has treated in a special way, differing from that accorded most contracts. An important point of difference is that no consideration need be expressed in a negotiable instrument. A second is that in the hands of an innocent holder for value, an instrument legally issued is good, even if consideration has failed or other faults exist which would ordinarily render a contract voidable between the parties involved; this will better appear later.

Foreign and Inland. Bills of exchange are foreign or inland. When payable in another State or country from that where drawn, they are foreign; when in the same State or country, inland.

Drafts. What is known as a " draft " is in essence a bill of exchange, and differs from it in that a draft often does not presuppose any other commercial transaction, while the bill of exchange commonly does, often a sale, and the draft usually calls for immediate or prompt payment rather than acceptance. A student at college makes a draft on his father to pay his term bill, and this draft is deposited in the bank with the checks which others have paid in, and the draft is negotiable.

Bank Drafts. Banks are constantly issuing " bank drafts " or orders upon other banks where they have funds. If a depositor wishes to send money to some distant point, or if he travels far from home, he secures a bank draft which will be honored provided only the payee be identified, and where his own check might not be honored through lack of personal credit. Some acquaintance will gladly identify him, but ought not to be asked to indorse his personal check. A bank draft on a New York bank is accepted practically anywhere in the United States. A bank draft on Chicago, San Francisco, or Boston is almost equally good in the neighborhood of such city. Bank drafts are negotiable.

Certificates of Deposit. A depositor in a bank sometimes wants the money to draw interest, and does not care to draw checks against it. He takes a " certificate of deposit " which is substantially the promissory note of the bank. It is commonly assignable and negotiable.

Bank Notes. Bank notes of national banks are not receivable as money for certain purposes; they are not legal tender. They are essentially promissory notes, and are negotiable, and are made payable to bearer so that an indorsement is not necessary. United States gold and silver certificates are likewise not legal tender. Legal tender may be defined as money receivable for all debts. What is legal tender is defined by the Legal Tender Acts, which are United States Statutes.

Travelers' Cheques. People traveling abroad often use " travelers' cheques " of which the American Express Company checks were among the earliest; they are a series of checks against the American Express Company, each for a specified amount. They are negotiable, are signed by the traveler when he gets them, and are indorsed by him, as the payee, when he receives money for them.

Letters of Credit. " Letters of credit " serve a somewhat similar purpose, but are materially different in form and are not negotiable.

Coupon Bonds. Coupon bonds issued by railroads or by large corporations are also negotiable, unless registered so that any transfer must appear on the books of the company; it is not customary to indorse them. They have " coupons " attached to them, each due every half year as a rule, and containing a statement or agreement as to payment. Such coupons are negotiable, and commonly even when the bond is registered, which means registered as to principal. The coupons are seldom indorsed. Registered bonds often, however, have no coupons attached and the interest is then paid by check.

Certificates of Stock. Certificates of stock are assignable, but are simply evidence of rights in a company, and do not call for the payment of money at any time; although assignable, they are not negotiable.

The Negotiable Instruments Law. The law of negotiable instruments is exceptionally well stated and codified in what is called " The Negotiable Instruments Law," which has been adopted with little variation by a large majority of the States. It is given below substantially in full from the New York law. The order of Articles is changed slightly, and a few comments are made, and are distinguishable by the type, a smaller type being used for the law itself. It is unusually well prepared, a fine specimen of Statute Law. Most of what is contained in it was good Common Law in one or another of the States, but there had been appreciable variation in the law as interpreted in the different States which have adopted it.

LAWS OF NEW YORK

AN ACT in relation to Negotiable Instruments. [In effect February 17, 1909.]

Article I. Short title; definitions (§§ 1, 2).
II. General provisions (§§ 3–7).
III. Form and interpretation(§§ 20–42).
IV. Consideration (§§ 50–55).
V. Negotiation (§§ 60–80).
VI. Rights of holder(§§ 90–98).
VII. Liabilities of parties (§§ 110–119).
VIII. Presentment for payment (§§ 130–148).
IX. Notice of dishonor (§§ 160–189).
X. Discharge (§§ 200–206).
XI. Bills of exchange; form and interpretation (§§ 210–215).
XII. Acceptance (§§ 220–230).
XIII. Presentment for acceptance (§§ 240–248).
XIV. Protest (§§ 260–268).
XV. Acceptance for honor (§§ 280–289).
XVI. Payment for honor (§§ 300–306).
XVII. Bills in sets (§§ 310–315).
XVIII. Promissory notes and checks (§§ 320–326).
XIX. Notes given for patent rights and for a speculative consideration (§§ 330–332).
XX. Laws repealed; when to take effect (§§ 340–341).

ARTICLE I

SHORT TITLE; DEFINITIONS

§ 1. *Short title.* — This chapter shall be known as the "Negotiable Instruments Law."

§ 2. *Definitions and meaning of terms.* — In this chapter, unless the context otherwise requires:

"Acceptance" means an acceptance completed by delivery or notification.

"Action" includes counter-claim and set-off.

"Bank" includes any person or association of persons carrying on the business of banking, whether incorporated or not.

"Bearer" means the person in possession of a bill or note which is payable to bearer.

"Bill" means bill of exchange, and "note" means negotiable promissory note.

"Delivery" means transfer of possession, actual or constructive, from one person to another.

"Holder" means the payee or indorsee of a bill or note, who is in possession of it, or the bearer thereof.

"Indorsement" means an indorsement completed by delivery.

"Instrument" means negotiable instrument.

"Issue" means the first delivery of the instrument, complete in form, to a person who takes it as a holder.

"Person" includes a body of persons, whether incorporated or not.

"Value" means valuable consideration.

"Written" includes printed, and "writing" includes print.

ARTICLE II

GENERAL PROVISIONS

§ 3. *Person primarily liable on instrument.* — The person "primarily" liable on an instrument is the person who by the terms of the instrument is absolutely required to pay the same. All other parties are "secondarily" liable.

A negotiable instrument is sometimes indorsed without consideration as a friendly act, or an "accommodation" to the maker. Sometimes the friend has accommodated by becoming the maker of the instrument, and turning it over to the real borrower on the instrument (or similar user of it) who indorses it and thus becomes formally identified with it. In the case of an "accommodation" maker, it is held that the addition of the word surety does not relieve him from primary liability to holders in due course.

§ 4. *Reasonable time, what constitutes.* — In determining what is a "reasonable time" or an "unreasonable time," regard is to be had to the nature of the instrument, the usage of trade or business (if any) with respect to such instruments, and the facts of the particular case.

§ 5. *Time, how computed; when last day falls on holiday.* — Where the day, or the last day, for doing any act herein required or permitted to be done falls on Sunday or on a holiday, the act may be done on the next succeeding secular or business day.

§ 6. *Application of chapter.* — The provisions of this act do not apply to negotiable instruments made and delivered prior to the passage hereof.

§ 7. *Law merchant; when governs.* — In any case not provided for in this act the rules of the law merchant shall govern.

It is not entirely clear what Section 7 means. Apparently it means that the law previously in force with relation to negotiable instruments shall govern rather than the law applied to contracts in general.

ARTICLE XI

BILLS OF EXCHANGE; FORM AND INTERPRETATION

§ 210. *Bill of exchange defined.* — A bill of exchange is an unconditional order in writing addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand or at a fixed or determinable future time a sum certain in money to order or to bearer.

§ 211. *Bill not an assignment of funds in hands of drawee.* — A bill of itself does not operate as an assignment of the funds in the hands of the drawee available for the payment thereof and the drawee is not liable on the bill unless and until he accepts the same.

§ 212. *Bill addressed to more than one drawee.* — A bill may be addressed to two or more drawees jointly, whether they are partners or not; but not to two or more drawees in the alternative or in succession.

§ 213. *Inland and foreign bills of exchange.* — An inland bill of exchange is a bill which is, or on its face purports to be, both drawn and payable within the State.

Any other bill is a foreign bill. Unless the contrary appears on the face of the bill, the holder may treat it as an inland bill.

§ 214. *When bill may be treated as promissory note.* — Where in a bill the drawer and drawee are the same person, or where the drawee is a fictitious person, or a person not having capacity to contract, the holder may treat the instrument, at his option, either as a bill of exchange or a promissory note.

§ 215. *Referee in case of need.* — The drawer of a bill and any indorser may insert thereon the name of a person to whom the holder may resort in case of need, that is to say, in case the bill is dishonored by non-acceptance or non-payment. Such person is called the referee in case of need. It is in the option of the holder to resort to the referee in case of need or not, as he may see fit.

ARTICLE XVIII

PROMISSORY NOTES AND CHECKS

§ 320. *Promissory note defined.* — A negotiable promissory note within the meaning of this act is an unconditional promise in writing made by one person to another, signed by the maker, engaging to pay on demand or at a fixed or determinable future time a sum certain in money to order or to bearer. Where a note is drawn to the maker's own order, it is not complete until indorsed by him.

§ 321. *Check defined.* — A check is a bill of exchange drawn on a bank, payable on demand. Except as herein otherwise provided, the provisions of this act applicable to a bill of exchange payable on demand apply to a check.

While checks are in many ways bills of exchange they have come to have characters and features of their own. A check is always drawn upon a bank, and drawn against funds actually in the bank. A check is sometimes paid when the account is overdrawn, but this is irregular, and is seldom countenanced, although sometimes winked at. The death of the drawer of a check revokes it as soon as the bank has notice, although the check in this case is probably good against the estate as evidence of debt. A check which is not honored does not pay a debt; the creditor can sue on the debt.

The order in a check need not be unconditional. A condition sometimes is attached, as " payable only through the clearing house " which makes it not payable over the counter of the bank on which it is issued.

The deposit of a check puts the money to the credit of the depositor at once, unless taken for collection, and the bank may (but seldom does) refuse to accept checks deposited, except for collection. The ordinary custom is that the depositor may check out at once against the deposit, the credit to be canceled in case of dishonor. A bank may, however, refuse to pay a check where the deposit is insufficient without certain checks placed on deposit; the credit of the depositor may enter into such action.

A depositor may stop payment on a check by proper notice to the bank. By doing so he may be liable in a suit to the payee or holder of the check; but the bank may properly refuse to pay the check. If stopped

because a check has been lost, payment should not be made by a check for the same amount on the same bank without proper notice to the bank. A check on another bank, a New York draft, or a certified check are suitable methods of payment in such cases. A new check, marked "duplicate," is often used but is less desirable.

Entering a check in a customer's bank book and crediting to his account does not make the bank a "holder for value," but if the bank has paid to the depositor money available only from such deposit, the bank is then a holder for value to the extent of such payment.

§ 322. *Within what time a check must be presented.* — A check must be presented for payment within a reasonable time after its issue or the drawer will be discharged from liability thereon to the extent of the loss caused by the delay.

When a payee neglects to present his check promptly in the regular course of business, and the bank fails, the loss is on the payee and not on the drawer of the check. Delay in presentment of the check does not discharge the drawer unless he can show damage; this he can do in case of the failure of the bank.

§ 323. *Certification of check; effect of.* — Where a check is certified by the bank on which it is drawn the certification is equivalent to an acceptance.

§ 324. *Effect where the holder of check procures it to be certified.* — Where the holder of a check procures it to be accepted or certified the drawer and all endorsers are discharged from liability thereon.

§ 325. *When check operates as an assignment.* — A check of itself does not operate as an assignment of any part of the funds to the credit of the drawer with the bank, and the bank is not liable to the holder, unless and until it accepts or certifies the check.

§ 326. *Recovery of forged check.* — No bank shall be liable to a depositor for the payment by it of a forged or raised check, unless within one year after the return to the depositor of the voucher of such payment, such depositor shall notify the bank that the check so paid was forged or raised. (This section added by Laws of 1904, chap. 287.)

In certain formal matters of payment, the payee demands something more than the credit of the drawer as expressed by his personal check. If the check is certified, the credit of the bank is substituted. The proper officer of the bank attaches his signature to the certification; the president, cashier, or paying teller has an accepted right to certify.

Certification is in effect acceptance by the bank, and discharges the drawer and indorsers. Its effect is to guarantee the drawer's signature and sufficiency of funds, and the amount of the check is at once withdrawn from the deposit and reserved for payment of the check. Certification does not guarantee any matter of good faith or consideration between the parties. The drawer cannot stop payment on a certified check.

A check presented for certification may be retained for a time, even

24 hours, for examination. The presentation for certification is made sometimes by the payee or other holder, sometimes by the drawer before delivery to payee.

Attachment of a deposit will preserve for the creditors so much as the attachment specifies, and no check will afterward be honored, if its payment will reduce the account below the specified amount. The bank is protected in refusing to pay.

ARTICLE III

FORM AND INTERPRETATION

§ 20. *Form of negotiable instrument.* — An instrument to be negotiable must conform to the following requirements:

1. It must be in writing and signed by the maker or drawer.

The signature, however, may be by initials, or any signature the maker may adopt as his own; it may be printed, or made by a stamp; it may be a " mark " properly attested. The instrument, of course, must be certain as to the person signing. There may readily be a question as to the business wisdom of signing by a print or stamp.

2. Must contain an unconditional promise or order to pay a sum certain in money.

A bill of exchange must contain an order, while a note must contain a promise. An order is necessary; a request is not sufficient. Payment must be made in money only, and this means legal tender, although other kinds of currency are in general use, and are commonly accepted in payment, and are legal if so accepted.

3. Must be payable on demand, or at a fixed or determinable future time.
4. Must be payable to order or to bearer; and
5. Where the instrument is addressed to a drawee, he must be named or otherwise indicated therein with reasonable certainty.

What is known as a " crossed check " is little used in this country. It has lines drawn across it, and requires presentation through some other bank, to whom it is supposed the payee is known. Sometimes the other bank is specified; sometimes it is " payable only through the clearing house."

§ 21. *Certainty as to sum; what constitutes.* — The sum payable is a sum certain within the meaning of this act, although it is to be paid:

1. With interest; or

Discount is in its nature similar to interest. A note for $100 payable six months after date may be taken to a bank, or sold to some individual, and " discounted." If the interest rate is 6 per cent, the discount for 6

months will be figured as $3 and the bank or individual will pay $97 for it. More precisely, as a matter of mathematics the sum should be $100 divided by 1.03, or $97.09, but bank practice does not follow this method of figuring.

2. By stated instalments; or

3. By stated instalments, with a provision that upon default in payment of any instalment or of interest, the whole shall become due; or

4. With exchange, whether at a fixed rate or at the current rate; or

5. With costs of collection or an attorney's fee, in case payment shall not be made at maturity.

§ 22. *When promise is unconditional.* — An unqualified order or promise to pay is unconditional within the meaning of this act, though coupled with:

1. An indication of a particular fund out of which reimbursement is to be made, or a particular account to be debited with the amount; or

2. A statement of the transaction which gives rise to the instrument.

But an order or promise to pay out of a particular fund is not unconditional.

§ 23. *Determinable future time; what constitutes.* — An instrument is payable at a determinable future time, within the meaning of this act, which is expressed to be payable:

1. At a fixed period after date or sight; or

2. On or before a fixed or determinable future time specified therein; or

3. On or at a fixed period after the occurrence of a specified event, which is certain to happen, though the time of happening be uncertain.

An instrument payable upon a contingency is not negotiable, and the happening of the event does not cure the defect.

§ 24. *Additional provisions not affecting negotiability.* — An instrument which contains an order or promise to do any act in addition to the payment of money is not negotiable. But the negotiable character of an instrument otherwise negotiable is not affected by a provision which:

1. Authorizes the sale of collateral securities in case the instrument be not paid at maturity; or

When a loan is made and a note given, the lender often demands something as security in addition to the credit of the borrower. A bond or a certificate of stock or something similar having commercial value is often deposited as " collateral " security, to be held and not disposed of unless the borrower fails to pay the note at maturity.

2. Authorizes a confession of judgment if the instrument be not paid at maturity; or

3. Waives the benefit of any law intended for the advantage or protection of the obligor; or

4. Gives the holder an election to require something to be done in lieu of payment of money.

But nothing in this section shall validate any provision or stipulation otherwise illegal.

§ 25. *Omissions; seal; particular money.* — The validity and negotiable character of an instrument are not affected by the fact that:

1. It is not dated; or

2. Does not specify the value given, or that any value has been given therefor; or

3. Does not specify the place where it is drawn or the place where it is payable; or

4. Bears a seal; or

5. Designates a particular kind of current money in which payment is to be made.

But nothing in this section shall alter or repeal any statute requiring in certain cases the nature of the consideration to be stated in the instrument.

§ 26. *When payable on demand.* — An instrument is payable on demand:

1. Where it is expressed to be payable on demand, or at sight, or on presentation; or

2. In which no time for payment is expressed.

Where an instrument is issued, accepted or indorsed when overdue, it is, as regards the person so issuing, accepting or indorsing it, payable on demand.

§ 27. *When payable to order.* — The instrument is payable to order where it is drawn payable to the order of a specified person or to him or his order. It may be drawn payable to the order of:

1. A payee who is not maker, drawer or drawee; or

2. The drawer or maker; or

3. The drawee; or

4. Two or more payees jointly; or

5. One or some of several payees; or

6. The holder of an office for the time being.

Where the instrument is payable to order the payee must be named or otherwise indicated therein with reasonable certainty.

§ 28. *When payable to bearer.* — The instrument is payable to bearer:

1. When it is expressed to be so payable; or

2. When it is payable to a person named therein or bearer; or

3. When it is payable to the order of a fictitious or non-existing person, and such fact was known to the person making it so payable; or

4. When the name of the payee does not purport to be the name of any person; or

5. When the only or last indorsement is an indorsement in blank.

When the instrument is payable to "wages," "sundries," or "cash," this is equivalent to payable to "bearer." Payable to bearer, John Brown, is not payable to bearer.

§ 29. *Terms, when sufficient.* — The instrument need not follow the language of this chapter, but any terms are sufficient which clearly indicate an intention to conform to the requirements hereof.

§ 30. *Date, presumption as to.* — Where the instrument or an acceptance or any indorsement thereon is dated, such date is deemed *prima facie* to be the true date of the making, drawing, acceptance or indorsement, as the case may be.

§ 31. *Ante-dated and post-dated.* — The instrument is not invalid for the reason only that it is ante-dated or post-dated, provided this is not done for an illegal or fraudulent purpose. The person to whom an instrument so dated is delivered acquires the title thereto as of the date of delivery.

§ 32. *When date may be inserted.* — Where an instrument expressed to be pay-

able at a fixed period after date is issued undated, or where the acceptance of an instrument payable at a fixed period after sight is undated, any holder may insert therein the true date of issue or acceptance, and the instrument shall be payable accordingly. The insertion of a wrong date does not avoid the instrument in the hands of a subsequent holder in due course; but as to him, the date so inserted is to be regarded as the true date.

Where an instrument is not dated, the holder may fill in the date of issue if known, or if unknown the date of receipt by him.

§ 33. *Blanks; when may be filled.* — Where the instrument is wanting in any material particular, the person in possession thereof has a *prima facie* authority to complete it by filling up the blanks therein. And a signature on a blank paper delivered by the person making the signature in order that the paper may be converted into a negotiable instrument operates as a *prima facie* authority to fill it up as such for any amount. In order, however, that any such instrument, when completed, may be enforced against any person who became a party thereto prior to its completion, it must be filled up strictly in accordance with the authority given and within a reasonable time. But if any such instrument, after completion, is negotiated to a holder in due course, it is valid and effectual for all purposes in his hands, and he may enforce it as if it had been filled up strictly in accordance with the authority given and within a reasonable time.

The provision as to filling blanks does not authorize the filling in of any sums not intended or which alter the character or legal effect of the instrument. The maker of an instrument ought not to leave any blanks which might be fraudulently filled out; clear carelessness, negligence on the maker's part in this matter would probably serve to protect a bank which paid a check which had been "raised."

§ 34. *Incomplete instrument not delivered.* — Where an incomplete instrument has not been delivered it will not, if completed and negotiated, without authority, be a valid contract in the hands of any holder, as against any person whose signature was placed thereon before delivery.

§ 35. *Delivery; when effectual; when presumed.* — Every contract on a negotiable instrument is incomplete and revocable until delivery of the instrument for the purpose of giving effect thereto. As between immediate parties, and as regards a remote party other than a holder in due course, the delivery, in order to be effectual, must be made either by or under the authority of the party making, drawing, accepting or indorsing, as the case may be; and in such case the delivery may be shown to have been conditional, or for a special purpose only, and not for the purpose of transferring the property in the instrument. But where the instrument is in the hands of a holder in due course, a valid delivery thereof by all parties prior to him so as to make them liable to him is conclusively presumed. And where the instrument is no longer in the possession of a party whose signature appears thereon, a valid and intentional delivery by him is presumed until the contrary is proved.

For transfer of an instrument, delivery is necessary, and very commonly indorsement. When payable "to order" transfer is only by indorsement and delivery. Transfer may be by operation of law as in case

of the death of the holder, when his personal representative (rather than his heir) holds and may transfer. On the death of a partner, the remaining partners must all sign as indorsers. In bankruptcy, the instrument passes to the assignee or trustee.

There is much technicality as to delivery. Mailing apparently is not delivery; the instrument may never reach its destination. If mailed by request of some person, mailing is then delivery to him; the risk of transmission is upon him. Handing for inspection is not delivery, nor leaving on the desk of the payee in his absence, nor placing in the hands of one's own agent. Delivery on condition is not delivery until the condition is fulfilled. Whether delivery on Sunday is good depends upon the laws of the State.

Instruments are sometimes placed in "escrow," in the hands of an uninterested party with authority and instructions to deliver when certain money is paid, or a deed presented, or some specified act performed. Placing in escrow is held to be delivery so far as the maker is concerned, as he has parted with all rights, and delivery is immediate upon the fulfilment of the conditions, even if this occurs after the death of the maker.

§ 36. *Construction where instrument is ambiguous.* — Where the language of the instrument is ambiguous, or there are omissions therein, the following rules of construction apply;

1. Where the sum payable is expressed in words and also in figures and there is a discrepancy between the two, the sum denoted by the words is the sum payable; but if the words are ambiguous or uncertain, references may be had to the figures to fix the amount;

2. Where the instrument provides for the payment of interest, without specifying the date from which interest is to run, the interest runs from the date of the instrument, and if the instrument is undated, from the issue thereof;

3. Where the instrument is not dated, it will be considered to be dated as of the time it was issued;

4. Where there is a conflict between the written and printed provisions of the instrument, the written provisions prevail;

5. Where the instrument is so ambiguous that there is doubt whether it is a bill or note, the holder may treat it as either at his election;

6. Where a signature is so placed upon the instrument that it is not clear in what capacity the person making the same intended to sign, he is to be deemed an indorser;

7. Where an instrument containing the words "I promise to pay" is signed by two or more persons, they are deemed to be jointly and severally liable thereon.

§ 37. *Liability of person signing in trade or assumed name.* — No person is liable on the instrument whose signature does not appear thereon, except as herein otherwise expressly provided. But one who signs in a trade or assumed name will be liable to the same extent as if he had signed in his own name.

§ 38. *Signature by agent; authority; how shown.* — The signature of any party may be made by a duly authorized agent. No particular form of appointment is necessary for this purpose; and the authority of the agent may be established as in other cases of agency.

§ 39. *Liability of person signing as agent.* — Where the instrument contains or a person adds to his signature words indicating that he signs for or on behalf of a principal, or in a representative capacity, he is not liable on the instrument if he was duly authorized; but the mere addition of words describing him as an agent, or as filling a representative character, without disclosing his principal, does not exempt him from personal liability.

§ 40. *Signature by procuration; effect of.* — A signature by "procuration" operates as notice that the agent has but a limited authority to sign, and the principal is bound only in case the agent in so signing acted within the actual limits of his authority.

Agency by "procuration" may be defined as express, formal agency for specific purposes, and those dealing with such an agent should know the range or limits of his authority.

§ 41. *Effect of indorsement by infant or corporation.* — The indorsement or assignment of the instrument by a corporation or by an infant passes the property therein, notwithstanding that from want of capacity the corporation or infant may incur no liability thereon.

§ 42. *Forged signature; effect of.* — Where a signature is forged or made without authority of the person whose signature it purports to be, it is wholly inoperative, and no right to retain the instrument, or to give a discharge therefor, or to enforce payment thereof against any party thereto, can be acquired through or under such signature, unless the party against whom it is sought to enforce such right is precluded from setting up the forgery or want of authority.

Forgery includes, in addition to signing another's name, changing any material part of a writing or adding anything changing its effect. It is also forgery to obtain the signature of a blind or illiterate person by false reading to him. This section, however, refers only to the case of a forged signature. An instrument must be valid when issued. It is the business of a bank to know the signature of its customer, and the bank stands the loss on a check paid by it if the signature be forged. Alterations in an instrument are on a different basis and are referred to in Section 206. While one person may be authorized to sign for another, there should be adequate evidence of such authorization; otherwise it will be considered forgery, and the burden of proof is on the signer.

ARTICLE XII

ACCEPTANCE

§ 220. *Acceptance; how made.* — The acceptance of a bill is the signification by the drawee of his assent to the order of the drawer. The acceptance must be in writing and signed by the drawee. It must not express that the drawee will perform his promise by any other means than the payment of money.

§ 221. *Holder entitled to acceptance on face of bill.* — The holder of a bill presenting the same for acceptance may require that the acceptance be written on the bill, and if such request is refused, may treat the bill as dishonored.

§ 222. *Acceptance by separate instrument.* — Where an acceptance is written on a paper other than the bill itself, it does not bind the acceptor, except in favor of a person to whom it was shown and who, on the faith thereof, receives the bill for value.

§ 223. *Promise to accept; when equivalent to acceptance.* — An unconditional promise in writing to accept a bill before it is drawn is deemed an actual acceptance in favor of every person who, upon the faith thereof, receives the bill for value.

§ 224. *Time allowed drawee to accept.* — The drawee is allowed twenty-four hours after presentment in which to decide whether or not he will accept the bill; but the acceptance if given dates as of the day of presentation.

§ 225. *Liability of drawee retaining or destroying bill.* — Where a drawee to whom a bill is delivered for acceptance destroys the same, or refuses within twenty-four hours after such delivery, or within such other period as the holder may allow, to return the bill accepted or non-accepted to the holder, he will be deemed to have accepted the same.

§ 226. *Acceptance of incomplete bill.* — A bill may be accepted before it has been signed by the drawer, or while otherwise incomplete, or when it is overdue, or after it has been dishonored by a previous refusal to accept, or by non-payment. But when a bill payable after sight is dishonored by non-acceptance and the drawee subsequently accepts it, the holder, in the absence of any different agreement, is entitled to have the bill accepted as of the date of the first presentment.

§ 227. *Kinds of acceptances.* — An acceptance is either general or qualified. A general acceptance assents without qualification to the order of the drawer. A qualified acceptance in express terms varies the effect of the bill as drawn.

§ 228. *What constitutes a general acceptance.* — An acceptance to pay at a particular place is a general acceptance unless it expressly states that the bill is to be paid there only and not elsewhere.

§ 229. *Qualified acceptance.* — An acceptance is qualified which is:

1. Conditional, that is to say, which makes payment by the acceptor dependent on the fulfillment of a condition therein stated;
2. Partial, that is to say, an acceptance to pay part only of the amount for which the bill is drawn;
3. Local, that is to say, an acceptance to pay only at a particular place;
4. Qualified as to time;
5. The acceptance of some one or more of the drawees, but not of all.

§ 230. *Rights of parties as to qualified acceptance.* — The holder may refuse to take a qualified acceptance, and if he does not obtain an unqualified acceptance, he may treat the bill as dishonored by non-acceptance. Where a qualified acceptance is taken, the drawer and indorsers are discharged from liability on the bill, unless they have expressly or impliedly authorized the holder to take a qualified acceptance, or subsequently assent thereto. When the drawer or an indorser receives notice of a qualified acceptance, he must within a reasonable time express his dissent to the holder, or he will be deemed to have assented thereto.

ARTICLE XIII

PRESENTMENT FOR ACCEPTANCE

§ 240. *When presentment for acceptance must be made.* — Presentment for acceptance must be made:

1. Where the bill is payable after sight or in any other case where present-

ment for acceptance is necessary in order to fix the maturity of the instrument; or

2. Where the bill expressly stipulates that it shall be presented for acceptance; or

3. Where the bill is drawn payable elsewhere than at the residence or place of business of the drawee.

In no other case is presentment for acceptance necessary in order to render any party to the bill liable.

§ 241. *When failure to present releases drawer and indorser.* — Except as herein otherwise provided, the holder of a bill which is required by the next preceding section to be presented for acceptance must either present it for acceptance or negotiate it within a reasonable time. If he fails to do so, the drawer and all indorsers are discharged.

§ 242. *Presentment; how made.* — Presentment for acceptance must be made by or on behalf of the holder at a reasonable hour, on a business day, and before the bill is overdue, to the drawee or some person authorized to accept or refuse acceptance on his behalf; and

1. Where a bill is addressed to two or more drawees who are not partners, presentment must be made to them all, unless one has authority to accept or refuse acceptance for all, in which case presentment may be made to him only;

2. Where the drawee is dead, presentment may be made to his personal representative;

3. Where the drawee has been adjudged a bankrupt or an insolvent, or has made an assignment for the benefit of creditors, presentment may be made to him or to his trustee or assignee.

§ 243. *On what days presentment may be made.* — A bill may be presented for acceptance on any day on which negotiable instruments may be presented for payment under the provisions of sections one hundred and thirty-two and one hundred and forty-five of this chapter. When Saturday is not otherwise a holiday, presentment for acceptance may be made before twelve o'clock noon on that day.

§ 244. *Presentment when time is insufficient.* — Where the holder of a bill drawn payable elsewhere than at the place of business or the residence of the drawee has not time with the exercise of reasonable diligence to present the bill for acceptance before presenting it for payment on the day that it falls due, the delay caused by presenting the bill for acceptance before presenting it for payment is excused and does not discharge the drawers and indorsers.

§ 245. *Where presentment is excused.* — Presentment for acceptance is excused and a bill may be treated as dishonored by non-acceptance in either of the following cases:

1. Where the drawee is dead or has absconded, or is a fictitious person or a person not having capacity to contract by bill;

2. Where after the exercise of reasonable diligence, presentment cannot be made;

3. Where, although presentment has been irregular, acceptance has been refused on some other ground.

§ 246. *When discharged by non-acceptance.* — A bill is dishonored by non-acceptance:

1. When it is duly presented for acceptance, and such an acceptance as is prescribed by this act is refused or cannot be obtained; or

2. When presentment for acceptance is excused and the bill is not accepted.

§ 247. *Duty of holder where bill not accepted.* — Where a bill is duly presented for acceptance and is not accepted within the prescribed time, the person presenting it must treat the bill as dishonored by non-acceptance or he loses the right of recourse against the drawer and indorsers.

§ 248. *Rights of holder where bill not accepted.* — When a bill is dishonored by non-acceptance, an immediate right of recourse against the drawers and indorsers accrues to the holder and no presentment for payment is necessary.

ARTICLE IV

CONSIDERATION

§ 50. *Presumption of consideration.* — Every negotiable instrument is deemed *prima facie* to have been issued for a valuable consideration; and every person whose signature appears thereon to have become a party thereto for value.

§ 51. *What constitutes consideration.* — Value is any consideration sufficient to support a simple contract. An antecedent or pre-existing debt constitutes value; and is deemed such whether the instrument is payable on demand or at a future time.

§ 52. *What constitutes holder for value.* — Where value has at any time been given for the instrument, the holder is deemed a holder for value in respect to all parties who became such prior to that time.

§ 53. *When lien on instrument constitutes holder for value.* — Where the holder has a lien on the instrument, arising either from contract or by implication of law, he is deemed a holder for value to the extent of his lien.

§ 54. *Effect of want of consideration.* — Absence or failure of consideration is matter of defense as against any person not a holder in due course; and partial failure of consideration is a defense *pro tanto*, whether the failure is an ascertained and liquidated amount or otherwise.

While consideration need not be expressed, yet between the immediate parties a lack or a failure of consideration will prevent recovery. This does not apply, however, to holders in due course.

§ 55. *Liability of accommodation party.* — An accommodation party is one who has signed the instrument as maker, drawer, acceptor or indorser, without receiving value therefor, and for the purpose of lending his name to some other person. Such a person is liable on the instrument to a holder for value, notwithstanding such holder at the time of taking the instrument knew him to be only an accommodation party.

ARTICLE V

NEGOTIATION

§ 60. *What constitutes negotiation.* — An instrument is negotiated when it is transferred from one person to another in such manner as to constitute the transferee the holder thereof. If payable to bearer it is negotiated by delivery; if payable to order it is negotiated by the indorsement of the holder completed by delivery.

Transfer of negotiable paper ordinarily carries collateral with it. This is true except for trust deeds and mortgages, and perhaps for these; they

ought, however, to be transferred by a separate and adequate paper of transfer.

§ 61. *Indorsement; how made.* — The indorsement must be written on the instrument itself or upon a paper attached thereto. The signature of the indorser, without additional words, is a sufficient indorsement.

§ 62. *Indorsement must be of entire instrument.* — The indorsement must be an indorsement of the entire instrument. An indorsement, which purports to transfer to the indorsee a part only of the amount payable, or which purports to transfer the instrument to two or more indorsees severally, does not operate as a negotiation of the instrument. But where the instrument has been paid in part, it may be indorsed as to the residue.

§ 63. *Kinds of indorsement.* — An indorsement may be either special or in blank; and it may also be either restrictive or qualified, or conditional.

§ 64. *Special indorsement; indorsement in blank.* — A special indorsement specifies the person to whom, or to whose order the instrument is to be payable; and the indorsement of such indorsee is necessary to the further negotiation of the instrument. An indorsement in blank specifies no indorsee, and an instrument so indorsed is payable to bearer, and may be negotiated by delivery.

§ 65. *Blank indorsement; how changed to special indorsement.* — The holder may convert a blank indorsement into a special indorsement by writing over the signature of the indorser in blank any contract consistent with the character of the indorsement.

The holder may thus avoid being an indorser unless the new holder requires his indorsement, which, however, he is likely to do in most cases.

§ 66. *When indorsement restrictive.* — An indorsement is restrictive, which either:

1. Prohibits the further negotiation of the instrument; or
2. Constitutes the indorsee the agent of the indorser; or
3. Vests the title in the indorsee in trust for or to the use of some other person.

But the mere absence of words implying power to negotiate does not make an indorsement restrictive.

§ 67. *Effect of restrictive indorsement; rights of indorsee.* — A restrictive indorsement confers upon the indorsee the right:

1. To receive payment of the instrument;
2. To bring any action thereon that the indorser could bring;
3. To transfer his rights as such indorsee, where the form of the indorsement authorizes him to do so.

But all subsequent indorsees acquire only the title of the first indorsee under the restrictive indorsement.

§ 68. *Qualified indorsement.* — A qualified indorsement constitutes the indorser a mere assignor of the title to the instrument. It may be made by adding to the indorser's signature the words "without recourse" or any words of similar import. Such an indorsement does not impair the negotiable character of the instrument.

§ 69. *Conditional indorsement.* — Where an indorsement is conditional, a party required to pay the instrument may disregard the condition and make payment to the indorsee or his transferee, whether the condition has been fulfilled or not. But

any person to whom an instrument so indorsed is negotiated will hold the same, or the proceeds thereof, subject to the rights of the person indorsing conditionally.

Various conditions may be imposed in the indorsement, and it is possible that the form of indorsement may make a paper non-negotiable if sufficiently restricted. Indorsement then may be in various forms and with different effects.

A simple indorsement in blank

Hugh James

has the effect of " pay to bearer."

Pay to the order of William Clark
Hugh James

restricts the payment.

Without recourse
Hugh James

conveys or transfers, but does not guarantee title.

Pay William Kane only
Hugh James

restricts payment to William Kane.

Pay to bearer
Hugh James

does not require identification of bearer, so that any one who gains possession of it even unlawfully will probably succeed in having it cashed if it is a check.

Some banks require the signature of the person to whom a check is paid, even when payable " to bearer "; the bank wants to have a record of who the " bearer " is, as stated under § 28.

Pay to the order of James Foster without identification
Hugh James

is a less common form of indorsement; it secures for the maker the signature of the payee, but does not hold the bank responsible for the signature nor require identification.

Pay to the order of George Parkes, Sec'y
Hugh James

does not allow the use by George Parkes of this money for purely personal purposes, and probably imposes liability upon the society of which he is secretary.

Pay to the order of Daniel Stokes for collection
Hugh James

has a similar effect, as has also

Pay to order of Patrick Hennessy for account of Silas Breck
Hugh James

Where a check is made payable " settlement in full " or " in full satisfaction " of a transaction, the payee may cash the check and sue for the additional amount, provided the larger sum was an agreed sum; but if in payment of a disputed sum, the cashing of the check settles the account. Evidence that the larger sum was agreed upon may be an important factor in such a transaction.

§ 70. *Indorsement of instrument payable to bearer.* — Where an instrument, payable to bearer, is indorsed specially, it may nevertheless be further negotiated by delivery; but the person indorsing specially is liable as indorser to only such holders as make title through his indorsement.

§ 71. *Indorsement where payable to two or more persons.* — Where an instrument is payable to the order of two or more payees or indorsees who are not partners, all must indorse, unless the one indorsing has authority to indorse for the others.

§ 72. *Effect of instrument drawn or indorsed to a person as cashier.* — Where an instrument is drawn or indorsed to a person as "cashier" or other fiscal officer of a bank or corporation, it is deemed *prima facie* to be payable to the bank or corporation of which he is such officer; and may be negotiated by either the indorsement of the bank or corporation, or the indorsement of the officer.

§ 73. *Indorsement where name is misspelled.* — Where the name of a payee or indorsee is wrongly designated or misspelled, he may indorse the instrument as therein described, adding, if he think fit, his proper signature.

Where a check or other instrument is made or indorsed to the order of *A*, it is required that *A* shall indorse in the precise form indicated, although this may not be his correct name or not his usual form of name. If a check is to be deposited in a bank, it should be again indorsed in the

form in which the account stands. The use of rubber stamps for such indorsement is widespread and legal.

§ 74. *Indorsement in representative capacity.* — Where any person is under obligation to indorse in a representative capacity, he may indorse in such terms as to negative personal liability.

§ 75. *Time of indorsement; presumption.* — Except where an indorsement bears date after the maturity of the instrument, every negotiation is deemed *prima facie* to have been effected before the instrument was overdue.

§ 76. *Place of indorsement; presumption.* — Except where the contrary appears every indorsement is presumed *prima facie* to have been made at the place where the instrument is dated.

§ 77. *Continuation of negotiable character.* — An instrument negotiable in its origin continues to be negotiable until it has been restrictively indorsed or discharged by payment or otherwise.

§ 78. *Striking out indorsement.* — The holder may at any time strike out any indorsement which is not necessary to his title. The indorser whose indorsement is struck out, and all indorsers subsequent to him, are thereby relieved from liability on the instrument.

§ 79. *Transfer without indorsement; effect of.* — Where the holder of an instrument payable to his order transfers it for value without indorsing it, the transfer vests in the transferee such title as the transferrer had therein, and the transferee acquires, in addition, the right to have the indorsement of the transferrer. But for the purpose of determining whether the transferee is a holder in due course, the negotiation takes effect as of the time when the indorsement is actually made.

§ 80. *When prior party may negotiate instrument.* — Where an instrument is negotiated back to a prior party, such party may, subject to the provisions of this act, reissue and further negotiate the same. But he is not entitled to enforce payment thereof against any intervening party to whom he was personally liable.

ARTICLE VI

RIGHTS OF HOLDER

§ 90. *Right of holder to sue; payment.* — The holder of a negotiable instrument may sue thereon in his own name; and payment to him in due course discharges the instrument.

§ 91. *What constitutes a holder in due course.* — A holder in due course is a holder who has taken the instrument under the following conditions:

1. That it is complete and regular upon its face;
2. That he became the holder of it before it was overdue, and without notice that it had been previously dishonored, if such were the fact;
3. That he took it in good faith and for value;
4. That at the time it was negotiated to him he had no notice of any infirmity in the instrument or defect in the title of the person negotiating it.

§ 92. *When person not deemed holder in due course.* — Where an instrument payable on demand is negotiated an unreasonable length of time after its issue, the holder is not deemed a holder in due course.

§ 93. *Notice before full amount paid.* — Where the transferee receives notice of any infirmity in the instrument or defect in the title of the person negotiating the same before he has paid the full amount agreed to be paid therefor, he will be

deemed a holder in due course only to the extent of the amount theretofore paid by him.

§ 94. *When title defective.* — The title of a person who negotiates an instrument is defective within the meaning of this act when he obtained the instrument, or any signature thereto, by fraud, duress, or force and fear, or other unlawful means, or for an illegal consideration, or when he negotiates it in breach of faith, or under such circumstances as amount to a fraud.

§ 95. *What constitutes notice of defect.* — To constitute notice of an infirmity in the instrument or defect in the title of the person negotiating the same, the person to whom it is negotiated must have had actual knowledge of the infirmity or defect, or knowledge of such facts that his action in taking the instrument amounted to bad faith.

§ 96. *Rights of holder in due course.* — A holder in due course holds the instrument free from any defect of title of prior parties and free from defenses available to prior parties among themselves, and may enforce payment of the instrument for the full amount thereof against all parties liable thereon.

An " innocent purchaser for value " or " holder in due course " cannot hold against a real defense such as:

Incapacity to contract.

Illegality, including usury and gambling.

Forgery, in which is included alteration.

Extinguishment.

Although the maker may be free in such a case, the indorser may sometimes be held. Any indorser later than the commission of the fault is liable to later holders.

If a maker or drawer has delivered an instrument to an impostor he is liable as against a " holder in due course "; he pays for his negligence.

§ 97. *When subject to original defenses.* — In the hands of any holder other than a holder in due course, a negotiable instrument is subject to the same defenses as if it were non-negotiable. But a holder who derives his title through a holder in due course, and who is not himself a party to any fraud or illegality affecting the instrument, has all the rights of such former holder in respect of all parties prior to the latter.

§ 98. *Who deemed holder in due course.* — Every holder is deemed *prima facie* to be a holder in due course; but when it is shown that the title of any person who has negotiated the instrument was defective, the burden is on the holder to prove that he or some person under whom he claims acquired the title as a holder in due course. But the last-mentioned rule does not apply in favor of a party who became bound on the instrument prior to the acquisition of such defective title.

ARTICLE VII

LIABILITIES OF PARTIES

§ 110. *Liability of maker.* — The maker of a negotiable instrument by making it engages that he will pay it according to its tenor; and admits the existence of the payee and his then capacity to indorse.

§ 111. *Liability of drawer.* — The drawer by drawing the instrument admits the existence of the payee and his then capacity to indorse; and engages that on due presentment the instrument will be accepted and paid, or both, according to its tenor, and that if it be dishonored and the necessary proceedings on dishonor be duly taken, he will pay the amount thereof to the holder, or to any subsequent indorser who may be compelled to pay it. But the drawer may insert in the instrument an express stipulation negativing or limiting his own liability to the holder.

§ 112. *Liability of acceptor.* — The acceptor by accepting the instrument engages that he will pay it according to the tenor of his acceptance; and admits:

1. The existence of the drawer, the genuineness of his signature, and his capacity and authority to draw the instrument; and

2. The existence of the payee and his then capacity to indorse.

§ 113. *When person deemed indorser.* — A person placing his signature upon an instrument otherwise than as maker, drawer or acceptor is deemed to be an indorser, unless he clearly indicates by appropriate words his intention to be bound in some other capacity.

§ 114. *Liability of irregular indorser.* — Where a person, not otherwise a party to an instrument, places thereon his signature in blank before delivery, he is liable as indorser in accordance with the following rules:

1. If the instrument is payable to the order of a third person, he is liable to the payee and to all subsequent parties.

2. If the instrument is payable to the order of the maker or drawer, or is payable to bearer, he is liable to all parties subsequent to the maker or drawer.

3. If he signs for the accommodation of the payee, he is liable to all parties subsequent to the payee.

§ 115. *Warranty; where negotiation by delivery, et cetera.* — Every person negotiating an instrument by delivery or by a qualified indorsement, warrants:

1. That the instrument is genuine and in all respects what it purports to be;

2. That he has a good title to it;

3. That all prior parties had capacity to contract;

4. That he has no knowledge of any fact which would impair the validity of the instrument or render it valueless.

But when the negotiation is by delivery only, the warranty extends in favor of no holder other than the immediate transferee. The provisions of subdivision three of this section do not apply to persons negotiating public or corporate securities, other than bills and notes.

§ 116. *Liability of general indorser.* — Every indorser who indorses without qualification, warrants to all subsequent holders in due course:

1. The matter and things mentioned in subdivisions one, two and three of the next preceding section; and

2. That the instrument is at the time of his indorsement valid and subsisting.

And, in addition, he engages that on due presentment, it shall be accepted or paid, or both, as the case may be, according to its tenor, and that if it be dishonored, and the necessary proceedings on dishonor be duly taken, he will pay the amount thereof to the holder, or to any subsequent indorser who may be compelled to pay it.

§ 117. *Liability of indorser where paper negotiable by delivery.* — Where a person places his indorsement on an instrument negotiable by delivery he incurs all the liabilities of an indorser.

§ 118. *Order in which indorsers are liable.* — As respects one another, indorsers

are liable *prima facie* in the order in which they indorse; but evidence is admissible to show that as between or among themselves they have agreed otherwise. Joint payees or joint indorsees who indorse are deemed to indorse jointly and severally.

§ 119. *Liability of agent or broker.* — Where a broker or other agent negotiates an instrument without indorsement, he incurs all the liabilities prescribed by section one hundred and fifteen of this chapter, unless he discloses the name of his principal, and the fact that he is acting only as agent.

ARTICLE VIII

PRESENTMENT FOR PAYMENT

§ 130. *Effect of want of demand on principal debtor.* — Presentment for payment is not necessary in order to charge the person primarily liable on the instrument; but if the instrument is, by its terms, payable at a special place, and he is able and willing to pay it there at maturity and has funds there available for that purpose, such ability and willingness are equivalent to a tender of payment upon his part. But except as herein otherwise provided, presentment for payment is necessary in order to charge the drawer and indorsers.

§ 131. *Presentment where instrument is not payable on demand.* — Where the instrument is not payable on demand, presentment must be made on the day it falls due. Where it is payable on demand, presentment must be made within a reasonable time after its issue, except that in case of a bill of exchange, presentment for payment will be sufficient if made within a reasonable time after the last negotiation thereof.

§ 132. *What constitutes a sufficient presentment.* — Presentment for payment, to be sufficient, must be made:

1. By the holder, or by some person authorized to receive payment on his behalf;
2. At a reasonable hour on a business day;
3. At a proper place as herein defined;
4. To the person primarily liable on the instrument, or if he is absent or inaccessible, to any person found at the place where the presentment is made.

§ 133. *Place of presentment.* — Presentment for payment is made at the proper place:

1. Where a place of payment is specified in the instrument and it is there presented;
2. Where no place of payment is specified, but the address of the person to make payment is given in the instrument and it is there presented;
3. Where no place of payment is specified and no address is given and the instrument is presented at the usual place of business or residence of the person to make payment.
4. In any other case if presented to the person to make payment wherever he can be found, or if presented at his last known place of business or residence.

§ 134. *Instrument must be exhibited.* — The instrument must be exhibited to the person from whom payment is demanded, and when it is paid must be delivered up to the party paying it.

§ 135. *Presentment where instrument payable at bank.* — Where the instrument is payable at a bank, presentment for payment must be made during banking hours, unless the person to make payment has no funds there to meet it at any time during

the day, in which case presentment at any hour before the bank is closed on that day is sufficient.

§ 139. *Presentment where principal debtor is dead.* — Where the person primarily liable on the instrument is dead, and no place of payment is specified, presentment for payment must be made to his personal representative, if such there be, and if with the exercise of reasonable diligence he can be found.

§ 140. *Presentment to persons liable as partners.* — Where the persons primarily liable on the instrument are liable as partners, and no place of payment is specified, presentment for payment may be made to any one of them, even though there has been a dissolution of the firm.

§ 141. *Presentment to joint debtors.* — Where there are several persons not partners primarily liable on the instrument, and no place of payment is specified, presentment must be made to them all.

§ 142. *When presentment not required to charge the drawer.* — Presentment for payment is not required in order to charge the drawer where he has no right to expect or no reason to believe that the drawee or acceptor will pay the instrument.

§ 143. *When presentment not required to charge the indorser.* — Presentment for payment is not required in order to charge an indorser where the instrument was made or accepted for his accommodation, and he has no reason to expect that the instrument will be paid if presented.

§ 144. *When delay in making presentment is excused.* — Delay in making presentment for payment is excused when the delay is caused by circumstances beyond the control of the holder and not imputable to his default, misconduct or negligence. When the cause of delay ceases to operate, presentment must be made with reasonable diligence.

§ 145. *When presentment may be dispensed with.* — Presentment for payment is dispensed with:

1. Where after the exercise of reasonable diligence presentment as required by this act cannot be made;

2. Where the drawee is a fictitious person;

3. By waiver of presentment express or implied.

§ 146. *When instrument dishonored by non-payment.* — The instrument is dishonored by non-payment when:

1. It is duly presented for payment and payment is refused or cannot be obtained; or

2. Presentment is excused and the instrument is overdue and unpaid.

§ 147. *Liability of person secondarily liable, when instrument dishonored.* — Subject to the provisions of this act, when the instrument is dishonored by non-payment, an immediate right of recourse to all parties secondarily liable thereon, accrues to the holder.

§ 148. *Time of maturity.* — Every negotiable instrument is payable at the time fixed therein without grace. When the day of maturity falls upon Sunday or a holiday, the instrument is payable on the next succeeding business day. Instruments falling due or becoming payable * on Saturday are to be presented for payment on the next succeeding business day, except that instruments payable on demand may, at the option of the holder, be presented for payment before twelve o'clock noon on Saturday when that entire day is not a holiday.

§ 149. *Time; how computed.* — Where the instrument is payable at a fixed period after date, after sight, or after the happening of a specified event, the time

* The words "or becoming payable" are peculiar to New York.

of payment is determined by excluding the day from which the time is to begin to run, and by including the date of payment.

§ 147. *Rule where instrument payable at bank.* — Where the instrument is made payable at a bank it is equivalent to an order to the bank to pay the same for the account of the principal debtor thereon.

§ 148. *What constitutes payment in due course.* — Payment is made in due course when it is made at or after the maturity of the instrument to the holder thereof in good faith and without notice that his title is defective.

ARTICLE IX

NOTICE OF DISHONOR

§ 160. *To whom notice of dishonor must be given.* — Except as herein otherwise provided, when a negotiable instrument has been dishonored by non-acceptance or non-payment, notice of dishonor must be given to the drawer and to each indorser, and any drawer or indorser to whom such notice is not given is discharged.

§ 161. *By whom given.* — The notice may be given by or on behalf of the holder, or by or on behalf of any party to the instrument who might be compelled to pay it to the holder, and who, upon taking it up, would have a right to reimbursement from the party to whom the notice is given.

§ 162. *Notice given by agent.* — Notice of dishonor may be given by an agent either in his own name or in the name of any party entitled to give notice, whether that party be his principal or not.

§ 163. *Effect of notice given on behalf of holder.* — Where notice is given by or on behalf of the holder, it inures for the benefit of all subsequent holders and all prior parties who have a right of recourse against the party to whom it is given.

§ 164. *Effect where notice is given by party entitled thereto.* — Where notice is given by or on behalf of a party entitled to give notice, it inures for the benefit of the holder and all parties subsequent to the party to whom notice is given.

§ 165. *When agent may give notice.* — Where the instrument has been dishonored in the hands of an agent, he may either himself give notice to the parties liable thereon, or he may give notice to his principal. If he give notice to his principal, he must do so within the same time as if he were the holder, and the principal, upon the receipt of such notice, has himself the same time for giving notice as if the agent had been an independent holder.

§ 166. *When notice sufficient.* — A written notice need not be signed, and an insufficient written notice may be supplemented and validated by verbal communication. A misdescription of the instrument does not vitiate the notice unless the party to whom the notice is given is in fact misled thereby.

§ 167. *Form of notice.* — The notice may be in writing or merely oral, and may be given in any terms which sufficiently identify the instrument, and indicate that it has been dishonored by non-acceptance or non-payment. It may in all cases be given by delivering it personally or through the mails.

§ 168. *To whom notice may be given.* — Notice of dishonor may be given either to the party himself or to his agent in that behalf.

§ 169. *Notice where party is dead.* — When any party is dead, and his death is known to the party giving notice, the notice must be given to a personal representative, if there be one, and if with reasonable diligence he can be found. If

there be no personal representative, notice may be sent to the last residence or last place of business of the deceased.

§ 170. *Notice to partners.* — Where the parties to be notified are partners, notice to any one partner is notice to the firm, even though there has been a dissolution.

§ 171. *Notice to persons jointly liable.* — Notice to joint parties who are not partners must be given to each of them, unless one of them has authority to receive such notice for the others.

§ 172. *Notice to bankrupt.* — Where a party has been adjudged a bankrupt or an insolvent, or has made an assignment for the benefit of creditors, notice may be given either to the party himself or to his trustee or assignee.

§ 173. *Time within which notice must be given.* — Notice may be given as soon as the instrument is dishonored; and unless delay is excused as hereinafter provided, must be given within the times fixed by this chapter.

§ 174. *Where parties reside in same place.* — Where the person giving and the person to receive notice reside in the same place, notice must be given within the following times:

1. If given at the place of business of the person to receive notice, it must be given before the close of business hours on the day following;

2. If given at his residence, it must be given before the usual hours of rest on the day following;

3. If sent by mail, it must be deposited in the post-office in time to reach him in usual course on the day following.

§ 175. *Where parties reside in different places.* — Where the person giving and the person to receive notice reside in different places, the notice must be given within the following times:

1. If sent by mail, it must be deposited in the post-office in time to go by mail the day following the day of dishonor, or if there be no mail at a convenient hour on that day, by the next mail thereafter.

2. If given otherwise than through the post-office, then within the time that notice would have been received in due course of mail, if it had been deposited in the post-office within the time specified in the last subdivision.

§ 176. *When sender deemed to have given due notice.* — Where notice of dishonor is duly addressed and deposited in the post-office, the sender is deemed to have given due notice, notwithstanding any miscarriage in the mails.

§ 177. *Deposit in post-office; what constitutes.* — Notice is deemed to have been deposited in the post-office when deposited in any branch post-office or in any letter box under the control of the post-office department.

§ 178. *Notice to subsequent party; time of.* — Where a party receives notice of dishonor, he has, after the receipt of such notice, the same time for giving notice to antecedent parties that the holder has after the dishonor.

§ 179. *Where notice must be sent.* — Where a party has added an address to his signature, notice of dishonor must be sent to that address; but if he has not given such address, then the notice must be sent as follows:

1. Either to the post-office nearest to his place of residence, or to the post-office where he is accustomed to receive his letters; or

2. If he lives in one place and has his place of business in another, notice may be sent to either place; or

3. If he is sojourning in another place, notice may be sent to the place where he is so sojourning.

But where the notice is actually received by the party within the time specified in this act, it will be sufficient, though not sent in accordance with the requirements of this section.

§ 180. *Waiver of Notice.* — Notice of dishonor may be waived, either before the time of giving notice has arrived or after the omission to give due notice, and the waiver may be express or implied.

§ 181. *Whom affected by waiver.* — Where the waiver is embodied in the instrument itself, it is binding upon all parties; but where it is written above the signature of an indorser, it binds him only.

§ 182. *Waiver of protest.* — A waiver of protest, whether in the case of a foreign bill of exchange or other negotiable instrument, is deemed to be a waiver not only of a formal protest, but also of presentment and notice of dishonor.

§ 183. *When notice is dispensed with.* — Notice of dishonor is dispensed with when, after the exercise of reasonable diligence, it cannot be given to or does not reach the parties sought to be charged.

§ 184. *Delay in giving notice; how excused.* — Delay in giving notice of dishonor is excused when the delay is caused by circumstances beyond the control of the holder and not imputable to his default, misconduct or negligence. When the cause of delay ceases to operate, notice must be given with reasonable diligence.

§ 185. *When notice need not be given to drawer.* — Notice of dishonor is not required to be given to the drawer in either of the following cases:

1. Where the drawer and drawee are the same person;

2. Where the drawee is a fictitious person or a person not having capacity to contract;

3. Where the drawer is the person to whom the instrument is presented for payment;

4. Where the drawer has no right to expect or require that the drawee or acceptor will honor the instrument;

5. Where the drawer has countermanded payment.

§ 186. *When notice need not be given to indorser.* — Notice of dishonor is not required to be given to an indorser in either of the following cases:

1. Where the drawee is a fictitious person or a person not having capacity to contract, and the indorser was aware of the fact at the time he indorsed the instrument;

2. Where the indorser is the person to whom the instrument is presented for payment;

3. Where the instrument was made or accepted for his accommodation.

§ 187. *Notice of non-payment where acceptance refused.* — Where due notice of dishonor by non-acceptance has been given, notice of a subsequent dishonor by non-payment is not necessary, unless in the meantime the instrument has been accepted.

§ 188. *Effect of omission to give notice of non-acceptance.* — An omission to give notice of dishonor by non-acceptance does not prejudice the rights of a holder in due course subsequent to the omission.

§ 189. *When protest need not be made; when must be made.* — Where any negotiable instrument has been dishonored it may be protested for non-acceptance or non-payment, as the case may be; but protest is not required, except in the case of foreign bills of exchange.

ARTICLE X

DISCHARGE

§ 200. ***Instrument; how discharged.*** **— A negotiable instrument is discharged:**

1. By payment in due course by or on behalf of the principal debtor;

2. By payment in due course by the party accommodated, where the instrument is made or accepted for accommodation;

3. By the intentional cancellation thereof by the holder;

4. By any other act which will discharge a simple contract for the payment of money;

5. When the principal debtor becomes the holder of the instrument at or after maturity in his own right.

Payment is not necessarily in money; it may be made in any form to which the parties agree as payment. Where the payment is made in any other form than money, it is a question of intent and agreement whether the obligation is canceled in giving a new security. Sometimes collateral security is given in addition. The question sometimes occurs whether a transaction involving a negotiable instrument is payment, or a sale of the instrument.

" Tender " is defined as an offer or attempt to perform an act which the party offering is bound to perform. In connection with negotiable instruments, if such an offer is accepted, it becomes payment, rather than tender which implies non-acceptance. It is well accepted that tender of money shall be in lawful money, or " legal tender " and nothing else. Bank notes, and even some of the paper money issued by the United States are not legal tender, as has been stated. If these are received, however, they are sustained as a proper medium of payment.

It is not competent, ordinarily, to discharge an instrument by a credit on the books unless this has been in some way authorized, but a note made payable at a bank implies authority in the bank to pay from the maker's account, although it does not compel it.

Payment should be made by the principal debtor; the acceptor of a bill, or the maker of a note is the principal debtor. If payment of a bill is made by the drawer, this amounts to a purchase, and the drawer has his remedy against the acceptor. Payment by any indorser as a guarantor likewise gives him his remedy against the principal debtor, as well as against previous indorsers.

The holder of an instrument is entitled to payment in full, but may accept partial payments in part satisfaction. If the holder gives additional time to the principal debtor, he practically makes a new contract to which the indorsers are not parties, so that their liability ceases.

§ 201. ***When persons secondarily liable on, discharged.*** **— A person secondarily liable on the instrument is discharged:**

1. By any act which discharges the instrument;
2. By the intentional cancellation of his signature by the holder;
3. By the discharge of a prior party;
4. By a valid tender of payment made by a prior party;
5. By a release of the principal debtor, unless the holder's right of recourse against the party secondarily liable is expressly reserved;
6. By any agreement binding upon the holder to extend the time of payment or to postpone the holder's right to enforce the instrument,* unless the right of recourse against such party is expressly reserved.

§ 202. — *Right of party who discharges instrument.* — Where the instrument is paid by a party secondarily liable thereon, it is not discharged; but the party so paying it is remitted to his former rights as regards all prior parties, and he may strike out his own and all subsequent indorsements, and again negotiate the instrument, except:

1. Where it is payable to the order of a third person, and has been paid by the drawer; and
2. Where it was made or accepted for accommodation, and has been paid by the party accommodated.

§ 203. *Renunciation by holder.* — The holder may expressly renounce his rights against any party to the instrument, before, at or after its maturity. An absolute and unconditional renunciation of his rights against the principal debtor made at or after the maturity of the instrument, discharges the instrument. But a renunciation does not affect the rights of a holder in due course without notice. A renunciation must be in writing, unless the instrument is delivered up to the person primarily liable thereon.

§ 204. *Cancellation; unintentional; burden of proof.* — A cancellation made unintentionally, or under a mistake, or without the authority of the holder, is inoperative; but where an instrument or any signature thereon appears to have been canceled the burden of proof lies on the party who alleges that the cancellation was made unintentionally, or under a mistake or without authority.

§ 205. *Alteration of instrument; effect of.* — Where a negotiable instrument is materially altered without the assent of all parties liable thereon, it is avoided, except as against a party who has himself made, authorized or assented to the alteration and subsequent indorsers. But when an instrument has been materially altered and is in the hands of a holder in due course, not a party to the alteration, he may enforce payment thereof according to its original tenor.

§ 206. *What constitutes a material alteration.* — Any alteration which changes:

1. The date;
2. The sum payable, either for principal or interest;
3. The time or place of payment;
4. The number or the relations of the parties;
5. The medium or currency in which payment is to be made;

Or which adds a place of payment where no place of payment is specified, or any other change or addition which alters the effect of the instrument in any respect, is a material alteration.

While a bank is responsible if it pays money on a forged signature, the case of an incomplete instrument is on a different basis if it has been de-

* By an error in engrossing, the words "unless made with the assent of the party secondarily liable, or" after the word "instrument" are omitted in the New York Act.

livered. If a check is signed and the amount not filled in, and the amount is filled in by another improperly, and the check comes into the hands of a "holder in due course," the latter can collect, even if it is the bank. The maker was negligent and his rights yield. If delivery has never been made by the maker, however, the holder cannot recover.

In a similar way it may be negligence to make and issue any instrument in such form that an alteration can readily be made, such as leaving free spaces which may be filled in or signing a paper such that by cutting off a part, its effect is changed. In the latter case the opportunity for so cutting it must be reasonably evident if negligence is to be imputed.

In filling out a check the maker should take care that there is no opportunity to fill out spaces not covered by writing or lines, and that the amount shown in figures does not permit alteration or "raising." Banks probably would be held liable if they should issue drafts readily altered. The custom seems well established for banks to use some form of "protector," which either perforates or stamps the amount through or into the body of the draft, so that erasure and change is impossible. A bank in such cases would probably be held liable for failing to use some protecting scheme while an individual might not. Check books are also made now on paper chemically treated, or with the face covered with machine or scroll work, to prevent erasing either by chemicals or by scraping. Many business houses use some form of protector and might be held liable if they neglected a reasonable precaution of this sort.

ARTICLE XIV

PROTEST

§ 260. *In what cases protest necessary.* — Where a foreign bill appearing on its face to be such is dishonored by non-acceptance, it must be duly protested for non-acceptance, and where such a bill which has not previously been dishonored by non-acceptance is dishonored by non-payment, it must be duly protested for non-payment. If it is not so protested, the drawer and indorsers are discharged. Where a bill does not appear on its face to be a foreign bill, protest thereof in case of dishonor is unnecessary.

§ 261. *Protest; how made.* — The protest must be annexed to the bill, or must contain a copy thereof, and must be under the hand and seal of the notary making it, and must specify:

1. The time and place of presentment;
2. The fact that presentment was made and the manner thereof;
3. The cause or reason for protesting the bill;
4. The demand made and the answer given, if any, or the fact that the drawee or acceptor could not be found.

§ 262. *Protest; by whom made.* — Protest may be made by:

1. A notary public; or

2. By any respectable resident of the place where the bill is dishonored, in the presence of two or more creditable witnesses.

§ 263. *Protest; when to be made.* — When a bill is protested, such protest must be made on the day of its dishonor, unless delay is excused as herein provided. When a bill has been duly noted, the protest may be subsequently extended as of the date of the noting.

§ 264. *Protest; where made.* — A bill must be protested at the place where it is dishonored, except that when a bill drawn payable at the place of business or residence of some person other than the drawee, has been dishonored by non-acceptance, it must be protested for non-payment at the place where it is expressed to be payable, and no further presentment for payment to, or demand on, the drawee is necessary.

§ 265. *Protest both for non-acceptance and non-payment.* — A bill which has been protested for non-acceptance may be subsequently protested for non-payment.

§ 266. *Protest before maturity where acceptor insolvent.* — Where the acceptor has been adjudged a bankrupt or an insolvent, or has made an assignment for the benefit of creditors, before the bill matures, the holder may cause the bill to be protested for better security against the drawer and indorsers.

§ 267. *When protest dispensed with.* — Protest is dispensed with by any circumstances which would dispense with notice of dishonor. Delay in noting or protesting is excused when delay is caused by circumstances beyond the control of the holder and not imputable to his default, misconduct, or negligence. When the cause of delay ceases to operate, the bill must be noted or protested with reasonable diligence.

§ 268. *Protest where bill is lost or destroyed or wrongly detained.* — Where a bill is lost or destroyed, or is wrongly detained from the person entitled to hold it, protest may be made on a copy or written particulars thereof.

ARTICLE XV

ACCEPTANCE FOR HONOR

§ 280. *When bill may be accepted for honor.* — Where a bill of exchange has been protested for dishonor by non-acceptance or protested for better security and is not overdue, any person not being a party already liable thereon may, with the consent of the holder, intervene and accept the bill supra protest for the honor of any party liable thereon or for the honor of the person for whose account the bill is drawn. The acceptance for honor may be for part only of the sum for which the bill is drawn; and where there has been an acceptance for honor for one party, there may be a further acceptance by a different person for the honor of another party.

§ 281. *Acceptance for honor; how made.* — An acceptance for honor supra protest must be in writing and indicate that it is an acceptance for honor, and must be signed by the acceptor for honor.

§ 282. *When deemed to be an acceptance for honor of the drawer.* — Where an acceptance for honor does not expressly state for whose honor it is made, it is deemed to be an acceptance for the honor of the drawer.

§ 283. *Liability of acceptor for honor.* — The acceptor for honor is liable to the holder and to all parties to the bill subsequent to the party for whose honor he has accepted.

§ 284. *Agreement of acceptor for honor.* — The acceptor for honor by such acceptance engages that he will on due presentment pay the bill according to the terms of his acceptance, provided it shall not have been paid by the drawee, and provided also that it shall have been duly presented for payment and protested for non-payment and notice of dishonor given to him.

§ 285. *Maturity of bill payable after sight; accepted for honor.* — Where a bill payable after sight is accepted for honor, its maturity is calculated from the date of the noting for non-acceptance and not from the date of the acceptance for honor.

§ 286. *Protest of bill accepted for honor or containing a reference in case of need.* — Where a dishonored bill has been accepted for honor supra protest or contains a reference in case of need, it must be protested for non-payment before it is presented for payment to the acceptor for honor or referee in case of need.

§ 287. *Presentment for payment to acceptor for honor; how made.* — Presentment for payment to the acceptor for honor must be made as follows:

1. If it is to be presented in the place where the protest for non-payment was made, it must be presented not later than the day following its maturity;

2. If it is to be presented in some other place than the place where it was protested, then it must be forwarded within the time specified in section one hundred and seventy-five.

§ 288. *When delay in making presentment is excused.* — The provisions of section one hundred and forty-one apply where there is delay in making presentment to the acceptor for honor or referee in case of need.

§ 289. *Dishonor of bill by acceptor for honor.* — When the bill is dishonored by the acceptor for honor it must be protested for non-payment by him.

ARTICLE XVI

PAYMENT FOR HONOR

§ 300. *Who may make payment for honor.* — Where a bill has been protested for non-payment, any person may intervene and pay its supra protest for the honor of any person liable thereon or for the honor of the person for whose account it was drawn.

§ 301. *Payment for honor; how made.* — The payment for honor supra protest in order to operate as such and not as a mere voluntary payment must be attested by a notarial act of honor, which may be appended to the protest or form an extension to it.

§ 302. *Declaration before payment for honor.* — The notarial act of honor must be founded on a declaration made by the payer for honor, or by his agent in that behalf declaring his intention to pay the bill for honor and for whose honor he pays.

§ 303. *Preference of parties offering to pay for honor.* — Where two or more persons offer to pay a bill for the honor of different parties, the person whose payment will discharge most parties to the bill is to be given the preference.

§ 304. *Effect on subsequent parties where bill is paid for honor.* — Where a bill has been paid for honor all parties subsequent to the party for whose honor it is paid are discharged, but the payer for honor is subrogated for, and succeeds to, both the rights and duties of the holder as regards the party for whose honor he pays and all parties liable to the latter.

§ 305. *Where holder refuses to receive payment supra protest.* — Where the

holder of a bill refuses to receive payment supra protest, he loses his right of recourse against any party who would have been discharged by such payment.

§ 306. *Rights of payer for honor.* — The payer for honor, on paying to the holder the amount of the bill and the notarial expenses incidental to its dishonor, is entitled to receive both the bill itself and the protest.

ARTICLE XVII

BILLS IN SETS

§ 310. *Bills in sets constitute one bill.* — Where a bill is drawn in a set, each part of the set being numbered and containing a reference to the other parts, the whole of the parts constitute one bill.

§ 311. *Rights of holders where different parts are negotiated.* — Where two or more parts of a set are negotiated to different holders in due course, the holder whose title first accrues is as between such holders the true owner of the bill. But nothing in this section affects the rights of a person who in due course accepts or pays the part first presented to him.

§ 312. *Liability of holder who indorses two or more parts of a set to different persons.* — Where the holder of a set indorses two or more parts to different persons he is liable on every such part, and every indorser subsequent to him is liable on the part he has himself indorsed, as if such parts were separate bills.

§ 313. *Acceptance of bills drawn in sets.* — The acceptance may be written on any part, and it must be written on one part only. If the drawee accepts more than one part, and such accepted parts are negotiated to different holders in due course, he is liable on every such part as if it were a separate bill.

§ 314. *Payment by acceptor of bills drawn in sets.* — When the acceptor of a bill drawn in a set pays it without requiring the part bearing his acceptance to be delivered up to him, and that part at maturity is outstanding in the hands of a holder in due course, he is liable to the holder thereon.

§ 315. *Effect of discharging one of a set.* — Except as herein otherwise provided, where any one part of a bill drawn in a set is discharged by payment or otherwise the whole bill is discharged.

ARTICLE XIX

NOTES GIVEN FOR PATENT RIGHTS AND FOR A SPECULATIVE CONSIDERATION

[This article appears only in the New York Act.]

§ 330. *Negotiable instruments given for patent rights.* — A promissory note or other negotiable instrument, the consideration of which consists wholly or partly of the right to make, use or sell any invention claimed or represented by the vendor at the time of sale to be patented, must contain the words "given for a patent right" prominently and legibly written or printed on the face of such note or instrument above the signature thereto; and such note or instrument in the hands of any purchaser or holder is subject to the same defenses as in the hands of the original holder; but this section does not apply to a negotiable instrument given solely for the purchase price or the use of a patented article.

§ 331. *Negotiable instruments for a speculative consideration.* — If the consideration of a promissory note or other negotiable instrument consists in whole or in part of the purchase price of any farm product, at a price greater by at least four

times than the fair market value of the same product at the time, in the locality, or of the membership and rights in an association, company or combination to produce or sell any farm product at a fictitious rate, or of a contract or bond to purchase or sell any farm product at a price greater by four times than the market value of the same product at the time in the locality, the words, "given for a speculative consideration," or other words clearly showing the nature of the consideration, must be prominently and legibly written or printed on the face of such note or instrument above the signature thereof; and such note or instrument, in the hands of any purchaser or holder, is subject to the same defenses as in the hands of the original owner or holder.

§ 332. *How negotiable bonds are made non-negotiable.* — The owner or holder of any corporate or municipal bond or obligation (except such as are designated to circulate as money, payable to bearer), heretofore or hereafter issued in and payable in this State, but not registered in pursuance of any State law, may make such bond or obligation, or the interest coupon accompanying the same, non-negotiable, by subscribing his name to a statement indorsed thereon that such bond, obligation or coupon is his property; and thereon the principal sum therein mentioned is payable only to such owner or holder, or his legal representatives or assigns, unless such bond, obligation or coupon be transferred by indorsement in blank, or payable to bearer, or to order, with the addition of the assignor's place of residence.

ARTICLE XX

LAWS REPEALED; WHEN TO TAKE EFFECT

§ 340. *Laws repealed.* — Of the laws enumerated in the schedule hereto annexed, that portion specified in the last column is hereby repealed.

§ 341. *When to take effect.* — This chapter shall take effect immediately.

An additional act is shown below which is outside the "Negotiable Instruments Law," and other States may have similar acts, so that the statutes of each State should be examined in case the engineer has interest in the matter.

LAWS OF NEW YORK

AN ACT to amend the Penal Code, relative to violation of The Negotiable Instruments Law.

Section 1. The penal code is hereby amended by inserting at the end of title twelve the following new sections:

§ 384m. *Notes given for patent rights.* — A person who takes, sells or transfers a promissory note or other negotiable instrument, knowing the consideration of such note or instrument to consist in whole or in part of the right to make, use or sell any patent invention or inventions, or any invention claimed or represented to be patented, without having the words "given for a patent right" written or printed legibly and prominently on the face of such note or instrument above the signature thereto, is guilty of a misdemeanor.

§ 384n. *Notes given for a speculative consideration.* — A person who takes, sells or transfers a promissory note or other negotiable instrument, knowing the consideration of such note or instrument to consist in whole or in part of the pur-

chase price of any farm product at a price greater by four or more times than the fair market value of the same product at the time in the locality, or in which the consideration shall be in whole or in part membership of and rights in an association, company or combination to produce or sell any farm product at a fictitious rate, or of a contract or bond to purchase or sell any farm product at such rate, without having the words "given for a speculative consideration," or other words clearly showing the nature of the consideration prominently and legibly written or printed on the face of such note or instrument above the signature thereof is guilty of a misdemeanor.

§ 2. Section two of chapter sixty-five of the laws of eighteen hundred and seventy-seven, and section two of chapter two hundred and sixty-two of the laws of eighteen hundred and ninety-one, are hereby repealed.

§ 3. This act shall take effect the first day of October, eighteen hundred and ninety-seven.

CHAPTER XI

RAILROADS

Interest of Engineers. Civil engineers or mechanical engineers are nowadays so often selected for the management and operation of railroads that a special chapter on railroads seems appropriate; electrical engineers in the near future may be expected to have a similar and equal interest. The engineer's interest is not restricted to location and construction, but extends to operation and to management.

Route. The first duty in connection with a railroad project is the selection of the general route, in pursuance of the wishes of the projectors in the case of a new railroad, or of the proper officials in the case of extension of an existing railroad. In either case this is commonly a preliminary either to securing or to formally extending a charter. The general route stated should be sufficiently explicit to meet the requirements of law but not so closely defined as to limit such freedom of action and selection as is allowable under the law. In a venture of this magnitude, the services of a lawyer should be available and preferably in consultation with the engineer. In some cases exact location may be required previous to incorporation, in others not.

Incorporation. The details of incorporation differ from those necessary for business corporations, but those are the lawyer's, and not the engineer's duty. So far as the route is concerned, the approval of the engineer is properly necessary. The raising of funds belongs to the incorporators; nevertheless the engineer should read and come to understand the laws of the State dealing with the incorporation of railroads. It is worth his while to have a broad outlook over the entire railroad field.

Financing. In financing railroads, in earlier days all the money required was in some cases raised by stock subscription. Nearly all of the railroads now are financed in part from the sale of bonds. Stocks and bonds of railroad companies are of great variety. Among the classes of stock there are common and preferred; the latter may be 1st preferred or 2d preferred, cumulative or non-cumulative.

Bonds. Bonds are more commonly mortgage bonds, but often are not. One railroad has 1st, 2d, 3d, 4th, and 5th mortgage bonds. There

are also income bonds which in some cases are little better than preferred stock. Some bonds are " convertible " into preferred stock, some into common stock. Equipment bonds are not uncommon. There are also occasionally prior lien bonds, and other bonds with various names and characteristics. Following the customs of their country, English owners often show a preference for " debentures " or debenture bonds, the terms of which are such that foreclosure is not possible for non-payment of interest when due.

Most of the special forms of bond and much of the preferred stock are the result of re-financing or re-organizing, in many cases after railroads have been placed in the hands of a receiver. With railroads whose credit is satisfactory, the common stock and mortgage bonds usually furnish sufficient variety to satisfy investors.

The railroads of the United States as a whole show a moderate excess of bonds over stock. Individual railroads show great differences in the proportion between the two, even among the important systems.

At the close of the year 1915, 38,861 miles of railroad with stock and funded debt amounting to $2,372,204,457, were in the hands of receivers, more commonly from inability to pay interest on their bonds but sometimes more directly from inability to meet other obligations. Receiver's certificates are another form of security issued to acquire funds necessary to tide over an emergency during the receivership. They are issued to protect the interests of the creditors, under the orders of the Court, and thus properly have priority over the bonds and all other forms of indebtedness.

Location. The definite location of the line of railroad is the next step in order. This must be followed, or accompanied, by the filing of plans, and perhaps profiles, of the located lines; these filings must comply with the laws of the State involved, and with United States laws in case the public domain is entered or crossed. The maps filed must be adequate to the purpose. The requirements involve the kind of maps and perhaps the scales, and also the forms of certificates to accompany them. Here again the lawyer is necessary, unless the engineer has had previous experience in exactly the same thing. Unless State laws or the charter confer the right to enter private lands for surveying purposes, or until by right of eminent domain a right is obtained, entry upon lands may be a trespass. The charter very frequently does authorize such entry subject ordinarily to the payment of damage actually caused, if any.

Approval Necessary. It should be understood that a location by an engineer, not reported to the company nor accepted by it, does not secure title to the company. Acceptance or approval by some adequate official authority is necessary. Priority over another company is not secured until

the location is thus formally adopted, and in some cases not until the proper filings are made. In some cases where filing is not a prior requirement, priority in instituting condemnation proceedings under the right of eminent domain will serve to secure title against another railroad. Sometimes failure to build within a limited time means abandonment of location and forfeiture of a right previously acquired; statutory provisions may often cover this.

Discretion as to Route. Railroad authorities have reasonable discretion in selecting the route. The railroad's rights in this matter must be reasonably exercised, but there is no necessity for proving the route the best or the only feasible one.

It is often possible to make minor changes in location; in some cases rights may have been acquired by landowners or perhaps by another railroad, and the change may involve expense or other difficulty for such reasons.

In some States no new line can be constructed until "a certificate of exigency" is issued by the Railroad Commission. The object is to prevent the building of unnecessary lines which the public must eventually support.

Lands of Other Railroads. Unless the charter or some statute authorize it, a newer railroad has not the right to occupy and use lands previously appropriated to another railroad, but the State has the right to specifically grant such authority. The right to cross another railroad may often be implied. Crossing at grade is in disfavor, and in very many cases will not be allowed if any other feasible method is apparent.

Highway Crossings. Unless some statute prevents it, crossing a highway at grade is allowable, but many States have passed laws not only forbidding or restricting this, but even providing for separating the grades of railroads and highways at existing crossings, and providing for the distribution of the expense of the change. In Massachusetts the railroad pays 65 per cent, the State 25 per cent, and the city or town 10 per cent of such cost. There is no uniformity in the provisions of those States which have made any similar provisions.

In some cases crossings must be maintained for the benefit of private owners of farms which have been cut in two, and a lawyer should be consulted as to the rights of such owners.

Operation at Crossing. In the operation of railroads at crossings of other railroads, or of highways at grade, the precautions necessary either at Common Law, or required by Statute Law, should be well understood. For regulating crossings with railroads, there is often a statute requiring a full stop before crossing or else the installation of an adequate interlocking plant.

Right of Way. Next comes the securing of lands for right of way, station grounds, or other railroad purposes. While this is not engineering, nevertheless the engineer is often found to be the man most available to attend to such matters. If he engages in this work, he will probably be expected to fill out the blanks in deeds for real estate, to see that the deeds are properly signed and acknowledged, and either filed or delivered to headquarters for filing; he may or may not be called upon to look up titles. Where State, county, city, or town lands, whether streets or otherwise, are to be crossed or occupied, proper legal steps must be taken to secure such occupancy or acquirement as may be necessary. Where navigable streams or bodies of water are to be crossed, the approval of the United States authorities must be secured.

Engineer's Qualifications. The engineer should prepare himself by consultation with a lawyer to do properly the things indicated above; unless unusually experienced he should not attempt the duties without such consultation. The engineer in settling for right of way, if not a natural trader, should make a point of acquiring skill in that line; with some experience he ought to become at least the equal of most of the landowners with whom he deals. Square dealing on his part, rather than sharp practices, will prove of advantage to the railroad. Lands will seldom be bought at their ordinary value and perhaps ought not to be; experience indicates that lands for right of way cost about three times the reasonable value of such lands if bought under ordinary conditions and in whole pieces.

Eminent Domain. The engineer should understand that where no agreement can be reached, the required lands, and under the laws of some States, material for construction also, may be secured under the "right of eminent domain." The right of the public to the service of common carriers is such that the courts have held a railroad to be a "public use" in the sense necessary for the exercise of this right.

After a railroad has been located and constructed, it is the usual rule that the right of eminent domain cannot be revived for the purpose of taking lands to straighten the lines, to double-track the road, or for other improvement, unless a new grant of authority for that purpose be delegated by the State.

Private Tracks. Tracks to factories or mines, or what are called industry tracks, are not available to the general public; the general public has no rights in them. The use is therefore a private use, and the right of eminent domain cannot be invoked to acquire any necessary lands. The same may be true of lumber lines which are sometimes rather extensive.

Methods of Securing Lands. In securing lands, especially for station grounds, localities and individuals are often willing either to contribute outright, to sell at low prices, or to aid in some way. Such action on their

part must, in general, be secured previous to the determination of the route, or of the definite location. Bonds or agreements as to price are often secured in advance of filing the location. In furtherance of such action, locating engineers sometimes run alternate locations, and the alternate line does not always have merit. This savors somewhat of sharp practice. Forms used for bonds or agreements should have the approval of some lawyer.

It is further true that under some circumstances an agreement to locate on a stated line or to locate a station in a special place has been found to be illegal as against public policy; this illegality, however, is not easy to establish. A company may legally re-locate stations for good reasons if it properly consults public convenience in doing so. The United States laws allow the right of way and station grounds upon the public domain to be acquired simply by proper filing.

Right of Way Title. What title the railroad acquires in its right of way is a matter of interest. When the right of way is acquired through the exercise of the right of eminent domain, only an easement for railroad purposes is secured, and when a court of equity enforces specific performance of contract, the same rule will no doubt hold; but where a deed in fee simple is taken, the railroad secures, in most States, a clear title and may reconvey for any use. In some States, however, it is held that the railroad has no power to acquire lands for other than purely railroad purposes, and in case of abandonment or disuse, the title reverts to the previous owner.

The railroad may acquire, by grant, lands for purposes not directly connected with railroad construction or operation, where the lands could not be taken by right of eminent domain.

Construction. After the lands have been secured, the work of construction follows, and Part II of this treatise deals with the details of contract letting, while the whole field of law as outlined in Part I may be involved in some way or come into play during the performance of the contract.

Examples. In the excavation of cuts, damage may occur by violating the right to lateral support. Bridges and culverts tend to obstruct the flow of streams. A change of channel may interfere in various ways with the flow of water in the streams or over the surface. An embankment or an undrained excavation may cause stagnant waters and create a nuisance. Surface waters may be gathered and cast in great volume on lower lands. Trespass upon lands or some form of negligence during construction is also liable to occur.

Fencing and Cattle. The railroad right of way is commonly fenced, and domestic animals, particularly cattle, cannot then get into these

lands. The Common Law does not require the railroad to fence its lands; the owner of animals must fence so as to confine them. Cattle have no right to roam at large, and in the absence of laws requiring fencing, the courts have sometimes held the railroad not liable where cattle had strayed upon the track and had been killed. Touching damages, one can sympathize with the farmer who refused to state the value of his cow until he received an answer to his question, " Be you the assessor or the railroad claim agent? " In many States, however, railroads are required by Statute Law to fence their grounds. When the law requires this of the railroad, an accident due to lack of fences renders the company liable to either passengers or employees injured. Cattle guards used at highways are the equivalent of fences at such points. At private crossings, gates or bars may be necessary. As to the particular places where fences are required, a question of law and fact arises, which may require the services of both court and jury to decide.

Use of Streets. Authority to use streets or highways for railroad tracks is not within the powers of a municipality unless specifically granted in the municipal charter. The authority rests in the State, and is often exercised directly by the State, as it should be; the interest of the larger public is often greater than that of the citizens of a municipality.

The municipality usually has the right to regulate the use of the railroad in many ways, for instance as to speed, as to conforming to grades or changes of grade in the streets, and in other ways. It must, however, exercise this right in a way not oppressive or unreasonable.

Whether the use of streets or highways by a commercial railroad constitutes a new use, and an additional burden for which abutters are entitled to compensation seems not to be fully settled. The courts differ as to conditions which make it so.

Use by Street Railways. With street railways also the right to occupy streets must come by legislative sanction from the State. It is customary, however, to delegate to the municipality the right to grant locations in various streets and to regulate the occupation as well as many matters of construction, operation, and maintenance, among these to prescribe the motive power. There is some question whether the legislature may grant a monopoly in the use of streets. In some cases, the consent of abutters or a specified proportion of the abutters is necessary to justify a location. A requirement has been made in some States that the franchise shall be sold to the most favorable bidder.

The use of the highways by street railways is generally held not to be an additional burden; so also with subways for rapid transit. On the other hand, elevated railways have been required to pay damages in some cities, but the elements of unsightliness and noise have been the controlling

factors and the damages sustained have been shown in the decrease in rentals.

Interurban Railroads. Interurban railroads partake of the character both of commercial railroads and of street railways. They often have their own right of way for considerable distances outside the cities although necessarily using the city streets. They frequently carry express or freight as well as passengers. Are they subject to the laws of railroads or, to the contrary, of street railways? In cities they ought to be subject to regulations governing street railways. Away from cities they are more like commercial railroads, and should properly be subject to substantially the same sort of control. The use of a country road by an interurban railroad probably constitutes an additional burden on the abutters.

Highway Crossings. The crossing of highways by a railroad or an interurban railway presents elements of danger in operation. Signs, gates, bells, and whistles are all used as warnings to users of the highways, and municipal or State regulations often require a street railway car to come to a full stop before crossings. Care is required of all users of a crossing at grade, and in case of accident, an attempt will be made to find the party guilty of negligence, and this will be determined at the trial. The violation of a city ordinance by either party may establish or place the negligence. What is negligence may often depend upon the surroundings and conditions.

COMMON CARRIERS

Definition. When the railroad is constructed and operation begins, it becomes ordinarily a common carrier and subject to the laws governing common carriers.

All persons or corporations who undertake for hire or reward to transport from one place to another either passengers or goods for others who choose to employ them are common carriers.

Law of Common Carriers. Every common carrier is bound to convey for every one who offers to pay his lawful charges, either passengers or any goods of a description which he is in the habit of conveying, unless his conveyance is full or, for other reasons, he be unable to convey them. Most railroads convey not only passengers, but also mail, express, and freight of nearly all kinds, some dangerous or perishable commodities being sometimes excepted. Some railroads, like the Boston, Revere Beach & Lynn Railroad, carry passengers only; there are probably others which carry freight only, but for any who offer; in either case they are common carriers.

Private Railroads. There are others, among them lumber roads of an entirely private character, which serve only their owners and are not common carriers. In these the public have no rights, and such railroads

cannot exercise the right of eminent domain as has been previously stated. There are also "industry tracks" leading to warehouses or factories, commonly connected with public railroads under some special contract as to construction, maintenance, and operation. The users of these facilities have substantially the same rights with the railroad, as a common carrier, as others who use the ordinary facilities of the railroad such as the freight house at the station for loading or unloading.

Carrier's Lien. While a common carrier may refuse to convey unless the lawful charges are first paid, he may, and very commonly does, carry goods looking to the goods themselves for payment, holding a lien upon them until the charges are paid. If, however, in some way the goods are consigned without the consent of the owner by some wrongdoer who has no title to the goods, the lien will not hold against the true owner. The owner was not at fault; the carrier was negligent to the extent that he might have demanded payment in advance; the owner's right is clearly superior either at law or in good morals. The carrier is not restricted to his lien (that is to the goods) for payment; he may retain the goods and sue for the charges as his remedy. Where prepayment is required the shipper is entitled to a receipt. The carrier is entitled, in addition to other charges, to demurrage charges for delay in unloading, to cover use of cars and track. Whether the carrier's lien covers demurrage charges seems to be unsettled.

Connecting Lines. For the through carriage of freight over connecting lines, the initial carrier, by the weight of authority in the United States, acts as the agent of the other lines; the final carrier acts as the collecting agent for the freight charges, and holds a lien upon the goods for the full charges. Whether the local agent has authority to contract for carriage beyond his own line seems not to be completely established. Practice and custom sometimes serve to solve the question. Usually in the absence of an agreement the carrier is not obliged to pay accrued charges and collect at the end, but for goods accepted for delivery C.O.D., the carrier has agreed to collect such charges. Custom, well established, may serve to fix the legal status between carriers.

Responsibility of Carrier of Freight. The common carrier is responsible for the safe and prompt conduct of goods put in his hands as a carrier of freight. In the days of transportation by wagon, the teamster was the only party at hand in position to resist highwaymen attempting to steal the goods; the law therefore held him (or his principal) responsible; otherwise he might be in league with the robbers. The law was a good one and there has not been sufficient reason to change it.

Extent of Responsibility. The common carrier is responsible for all damage from any cause whatsoever; barring only from the "act of God,"

(which means inevitable accident) or from the public enemy, or from the negligence of the shipper. The act of God is a force, superior to all human agency, whose occurrence could not have been forestalled by any reasonable human foresight and action. A cloudburst or excessive flood is the act of God, but not a somewhat unusual freshet. The line of cleavage is sometimes difficult to fix. Fire, unless from lightning, is held to proceed in some way from human agency, and for this the carrier is responsible. The public enemy is some body or some nation at war with the government. Rioters do not constitute a public enemy however powerful they may be, unless definitely in revolt in an attack upon the government. Resistance to the authorities in an attack upon individuals does not constitute a mob the public enemy.

Acceptance of Goods. The liability of the carrier begins with the acceptance of the goods, and when the owner or his agent, the drayman, relinquishes control to the agents or appropriate servants of the carrier, delivery is accomplished. In some cases the shipper is required to load, and here if the railroad fails to provide cars, goods in the warehouse are then at the carrier's risk. In other cases, it will depend upon agreement or equivalent custom, whether the railroad holds goods as warehouseman or carrier. The warehouseman is not an insurer as the carrier is, and is liable only for negligence.

Bill of Lading. On delivery the shipper is entitled to a bill of lading which is both a receipt and evidence of the contract to carry. It is generally on printed forms. It is also a symbol of title, and without its presentation the carrier may refuse to deliver goods at the point of destination in order to secure delivery to the proper person. The carrier cannot demand the surrender of the bill of lading, but may require a receipt for the goods delivered. The bill of lading is assignable, but is not properly a negotiable instrument. As has been stated elsewhere, a draft is often attached by the seller or shipper, so that the consignee can acquire the bill of lading only by paying or accepting the draft as may be required.

Special Cars. The carrier is not under obligation to carry goods of an unusual character, or requiring a special kind of car, such as a refrigerator car or oil tank car. He may not, however, discriminate by giving such service to one shipper and refusing it to another. His duty to the public as a common carrier forbids this; he is not allowed to discriminate between individuals.

Negligence of Carrier or Shipper. In the carriage of freight it matters not whether the carrier was negligent. If, however, any damage or loss which has occurred can be directly traced to negligence of the shipper, from faulty packing of the goods, or similar carelessness, or from the dangerous character of the goods, neither of which the carrier would detect

in the ordinary prudent course of business, the carrier is not responsible, but the burden of proof rests with the carrier in this case.

Responsibility of Connecting Lines. In the case of through freight over several lines, according to the weight of authority in the United States, each line is responsible for safe carriage over its own lines. The initial line in contracting for the entire carriage does so in part as agent for the other lines and does not assume responsibility for damage or loss beyond its own line.

Time of Delivery. In the absence of a special agreement to the contrary the carrier is responsible for delivery of the goods at their destination within a reasonable time, according to the usual course of business, with all convenient dispatch; in ordinary local freight, this does not mean great dispatch; reloading at connecting points often involves considerable delay "in the ordinary course of business." For unreasonable delay the carrier is liable. In case the consignee refuses to receive the goods, the carrier, as agent of the consignor must protect the latter's interest by prudent action, perhaps by notice to the consignor, or by sale of perishable goods, or such other action as circumstances shall dictate. If goods are held by consignee's order, and deterioration or other damage results, the consignee and not the carrier is responsible. The evidence necessary to protect the carrier should be in available shape. If the delay is due to the act of God or of the public enemy the carrier is not liable.

Place of Delivery. Ordinarily the depot or warehouse of the carrier will be the place of delivery; the side track for unloading may be the proper place for some commodities. Custom as to warehouse or side track controls. It is not customary in this country to deliver to the consignee's warehouse as it is in England. The law varies in different States as to whether the liability of the carrier ceases when the goods are placed on the platform or in the warehouse at the place of destination, or whether notice and reasonable opportunity to remove are essential to terminate the railroad's duty as carrier and substitute that as warehouseman. A further question may arise whether opportunity to remove includes opportunity for inspection. Usage and custom may determine this.

Limitation of Liability. By express agreement the carrier may limit his liability as insurer, for instance against fire. The carrier sometimes stipulates and contracts with the shipper that the latter shall insure the goods, and the consideration may be a reduction in rates. Such an agreement is good against fire occurring from causes outside the negligence of the carrier's servants, but not when arising from such negligence, it is against public policy as contained in the duty of the carrier to the public. The shipper is bound by the terms of his bill of lading and should read it. The carrier, however, may not have the right to impose terms and may

be compelled to accept goods for carriage under the law of the common carrier.

Injuries to Passengers. The responsibility of common carriers in carrying passengers is not the same as in the case of freight. A passenger has some capacity to care for himself. The law, therefore, is that the carrier is responsible to passengers only for injuries due to the negligence, unskilfulness, or fault of the carrier or its servants; the mere occurrence of an accident is not sufficient. A passenger may be ejected for non-payment of fare or for other proper cause, but unnecessary force or roughness must not be used. Whether a passenger may rightfully resist under circumstances other than of danger to himself is not altogether settled. In some States the railroad has a statutory remedy against a passenger for non-payment of fare.

Who are Passengers. Not only the ordinary traveler, but mail agents, postal clerks, and express messengers are, under the law, classed as passengers. A railroad employee may or may not be a passenger, dependent upon whether he is on his way to work or not. A person who has bought a ticket and is in a proper place preparatory to entering a train is a passenger. The relation of passenger ends when the traveler, after alighting, has passed beyond the company's property, or reasonably ought to have done so. A loiterer is not a passenger.

Contributory Negligence. The proof of negligence is not always simple, and the question of contributory negligence on the part of the passenger complicates the situation. In some States the absence of contributory negligence must be proved. The proof necessary to satisfy a jury is likely to be less where the defendant is a great railroad, than where he is an individual, and this statement is not intended as a slur at the jury system. For securing justice, there is, however, a counterbalance in the financial ability of the corporation, and the entire lack of it in the case of probably most passengers injured and some necessity on their part to share any award with their attorney. In case of the death of a passenger from accident, recovery is limited in many States, $5000 being a not uncommon figure, with an added amount if death was not instantaneous and there was conscious suffering.

Limitation of Responsibility. The attempt is made sometimes to limit and define the responsibility of the carrier in case of accident; this may appear on passes issued perhaps to members of the family of an employee, or to some State official required to use or to inspect the railroad; sometimes a ticket specifies exemption on account of a reduced rate. In many States any agreement signed to release the carrier is void, as against public policy, and the carrier is at least held responsible for gross negligence on its part.

Baggage. The railroad may, and commonly does, prescribe the amount of baggage which may be carried free by a passenger who has bought his ticket, and 150 lbs. is a common amount. The railroad further often prescribes that baggage of a value more than $100 will be carried at the owner's risk. In the absence of specific legislation, such a provision is invalid. The traveler may lawfully carry only the personal baggage necessary in making the trip, and ordinarily limited to wearing apparel, and this will vary considerably between the wife of a millionaire and the wife of a day laborer. A mechanic may carry his kit of tools. A salesman may not, however, carry a trunkful of samples. The baggage check operates as a receipt and is in many respects the equivalent of the bill of lading for freight. The passenger must accompany his baggage.

Interstate Rule for Baggage. A recent United States law as to interstate carriage of baggage, provides for a statement by the passenger, or his agent, as to the value of baggage carried, and a provision for excess payment for values greater than $100 per passenger. Such a law is not yet common for carriage within a State, but the railroad has a right to stipulate against liability above a certain amount unless extra payment is made.

Negligence as to Premises. The buildings, structures, platforms, approaches, and all property available to the public must be suitably arranged and kept safe, suitably lighted, and in proper order and repair, not only for the use of passengers, but for their friends who come to meet them or see them off, and also for the general public who have business of any kind with the railroad justifying use of the railroad facilities. This is true particularly in and around stations. Reasonable facilities must be provided for boarding and alighting from trains.

Fires. What is the responsibility of railroads for fires produced by sparks from the locomotive? The railroad is a recognized and a legal means for carrying on business. Under the Common Law, if operated with reasonable care, it is not responsible for unfortunate results, and may not always be liable for such fires. Unless by specific statute, the fact that a spark from the locomotive caused a fire is not conclusive against the railroad; there must have been negligence. If the careful use of well-approved modern apparatus, such as spark arrestors, would prevent such a result, it may be made to appear that there was negligence if this was not used. Statute Law in many States now provides either that the railroad shall be liable, or that the burden of proof as to negligence shall be on the railroad. The laws of some States specify that the occurrence of a fire from a spark from the locomotive is *prima facie* evidence of negligence. The railroad has an obligation to keep its right of way in condition not to spread fire to adjoining lands, and in some States railroads are required to

plough fire guards to prevent fire from running. With a fire once started it is negligence for the railroad not to stop it if it be feasible to do so. The law, whether Statute Law or otherwise, should be understood with relation to operation in any given State.

Freight Charges: Reasonable Rates. The common carrier may refuse to carry until the lawful charges are paid. Whether in advance or under the lien, the carrier has not the right to charge anything he pleases; he is entitled to a reasonable charge only. What is a reasonable charge or rate? What it costs the carrier for that carriage alone, over and above the cost of other business carried on, plus a bare profit, constitutes one limit with which the carrier is sometimes content; what the shipper can afford to pay for the service, and still make a profit, is another limit. Between these two limits the range is often very wide. For any class of traffic the carrier is entitled to some profit and ordinarily should receive enough to cover a proper allowance for interest on the cost of investment beyond the bare cost of carriage, certainly if the business is well handled. Where the charge or rate gives due weight to the ability of the shipper to pay and still make a profit, the charge is said to be based " on what the traffic will bear," which is not synonymous ordinarily with " all the traffic will bear."

Classification. As a part of this system, the custom is well established of charging more for fine dry goods and wearing apparel, for furniture, and other goods of high value, and less for coal, building stone, lumber, grain, and other low priced goods, especially carried in carload lots. The principle of what the traffic will bear is involved. " Classification " of this sort is in the interest of the shipper, and is not subject to serious criticism, unless as to the details of applying it. The United States Postal Service adopts this basis in its postal rates.

Proof of Unreasonable Charges. Under such conditions, few railroad officials can be sure that the rates charged are well adjusted; the problem is a difficult one. What chance has a shipper to prove that a rate charged him is unreasonably high? What will it cost him to try to prove it? What disadvantages may come from provoking the enmity of the carrier?

Personal Discrimination. Discrimination as to classes of goods, or " classification " has been referred to. At one time there was much discrimination between individuals. One man or corporation in the same locality was charged more than another for service not distinguishable as differing one from another in character; this was " personal discrimination," clearly illegal, but very difficult to prove if the carrier and the favored shipper were discreet.

Local Discrimination. There existed also " discrimination as to localities " by which one town or city had lower rates than another where no sufficient natural cause existed to excuse it. Where competition with

water carriers or with other railroads existed there was often good reason for it; but sometimes, perhaps often, it was a matter of favoritism, or of apparent (perhaps real) advantage to the railroad to favor certain localities. The practice was nevertheless illegal in essence, but again difficult to reach and prevent through private effort.

Government Control of Rates; Commissions. To cure or to minimize these evils, the various States have passed laws in some cases directly regulating rates, but more often providing a railroad commission (not always with this name), a part of whose duties it is to determine what are reasonable rates. More often than not the rates so determined have been upheld by the courts; but legislatures and commissions have occasionally gone wild and prescribed rates which the courts have found to be in effect confiscatory and therefore illegal.

Interstate Commerce Act. The most important and best known of legislation of this character is the Interstate Commerce Act passed by the United States government to control all traffic passing from one State to another. Railroads sometimes charged ridiculously large sums for hauling freight across a State line, and over this neither State had jurisdiction. In many other ways some such law was needed. Nearly everything prohibited by this act was already illegal under the Common Law, but the remedy was ineffective. Under this Act penalties of fines and imprisonment are imposed, and shippers are allowed to bring their complaints to the Interstate Commerce Commission where simplicity of procedure and of action available to the commission are advantageous to the shipper.

Long and Short Haul Clause; Pooling. Moreover, in its present form, the act provides that "it shall be unlawful" "to charge or receive any greater compensation in the aggregate for the transportation of passengers, or of like kind of property for a shorter than for a longer distance over the same line or route, in the same direction, the shorter being included in the longer distance": "Provided, however, that upon application to the Interstate Commerce Commission, such common carrier may in special cases, after investigation, be authorized" "to charge less for longer than for shorter distances." The law as originally passed used the term "under substantially similar conditions." This constituted new law, and while points where water competition existed were held not to come under "similar circumstances and conditions," radical changes in railroad operation as to charges became necessary, and the transcontinental lines terminating at the Pacific coast became nearly all (if not all) insolvent following it; their recovery later, however, has been complete.

Pooling. The Act also specifically prohibits the "pooling" of rates, which probably had always been illegal; the railroads apparently had never allowed a clear-cut decision of this case to be made by the courts.

Results on Rates. The results of legislation have been to largely do away with the evils connected with discrimination in rates, and also to bring the general level of rates to a point where the railroads, rather than the shippers, have cause for complaint.

Safety Appliances. Acts supplementary to the Interstate Commerce Act have required the introduction and use of safety appliances in the interests of both the public and the employees. Prominent among these are automatic brakes and automatic couplers. The complete regulation of signals has not yet come about, but has at times seemed imminent.

Accounts and Statistics. This Act also provides for methods and forms for keeping accounts, and also for the filing of statistics. Requirements similar in character are made by State laws or the regulations of State commissions, which also provide for the inspection of bridges and other structures, and for such other regulation as may seem necessary. A force of civil engineers and of inspectors is employed by many State commissions.

Valuation. A complete valuation of all the railroads of the United States has been provided for and is well under way in this year, 1917. This work is carried out under the Interstate Commerce Commission. The purpose of the valuation is still somewhat obscure; its requirements are quite rigid. Some advantage will come to the railroads through the enforced taking account of stock, which, however, is an expensive process.

Workmen's Compensation. Another United States law provides for the compensation of railroad employees injured while engaged in interstate commerce. Many States have similar laws which apply to employees generally, railroad employees among them not singled out.

Eight Hour Day. An Act known as the Adamson Law, passed by Congress in 1916, provides that an eight hour day shall be the basis for payment of train employees and perhaps of other railroad employees, and forbids an immediate decrease of pay. This law was passed while a strike of four powerful brotherhoods of train employees was imminent and at the demand of the brotherhood heads, who refused arbitration of their demands, and has been held by the Supreme Court to be constitutional.

State Laws. Not only are there United States laws governing and regulating interstate commerce, but the individual States have passed a multitude of laws regulating rates, taxation, and various other matters.

Separation of Grades. As has been noted above, much work has been done in recent years, especially in more populous communities, in separating the grades of highways and railroads, and some of the States have made provision for the apportionment of the expense, and for the appointment of special commissions to determine the details as well as to pass upon general schemes presented for such projects.

Demand on Officials' Time. The various laws requiring action by railroad officials and the many hearings before legislative committees and commissions constitute a serious drain upon the time and strength of the higher railroad officials. In addition to the requisite knowledge of the technical railroad matters under their charge, these officials must have a considerable understanding of the law applying to railroads, the greater part of which is Statute Law, and which shows changes almost every year, sometimes changes of great importance. A careful study and a good working knowledge of the laws of the States in which a railroad operates is of great importance to the operating or managing official who, however, can better appreciate Statute Law if he has a good comprehension of the Common Law as a groundwork, which it is the purpose of this treatise to afford.

There are questions of consolidation, leasing of lines, taxation, land grants, municipal aid, federal, State, or municipal regulation, and many others concerning which the services of an experienced lawyer are proper and necessary, and which can feasibly be referred to him.

CHAPTER XII

THE ENGINEER'S LEGAL RELATIONS WITH OTHERS

Engineer's Positions and Relations. The engineer may occupy the position of employer of other engineers; he may be the employee of another engineer; he may be the employee of a municipality, of some other corporation, or of some person, or of some association of persons. As an engineer in general practice, he may be the agent of others, whether corporations or individuals; he may engage in construction work as contractor. As a manufacturer of machinery, apparatus, appliances, or structures, he may occupy the position of seller. As a user of such articles he may be a buyer. He may exercise the special function of an expert witness in court or in hearings before some commission. He may be selected as arbitrator to settle some dispute. As consulting engineer, he may be an adviser of his client upon many business questions.

The nature of the operations directed by him also brings him into such relations with the general public that the engineer's duties and the public's rights must be properly understood and regarded. The relaticns of the engineer to others are thus extensive and varied, and the chapters preceding are intended to deal somewhat with these relations and the rights and duties connected with them; both the engineer's own rights and duties and those of others with respect to him.

Contracts for Services. Unless the engineer is a manufacturer, his income depends upon some sort of express or implied contract for his services. His income or remuneration may be upon a salary basis; for a bill rendered, dependent upon the amount of service of the engineer and his employees; for a lump sum; based upon a percentage of cost; or upon a contingent fee. There may be other unusual forms of compensation.

In many cases, a written contract for services seems desirable. When a young engineer is employed by the day or week or month without a specified term of service, a written contract is not very necessary. The rate of wages is soon established and permanent employment has not been agreed to.

Formal Contracts. When an important position, at a large salary, is to be assumed, either a formal contract should be made, or an equally

clear arrangement be made by an interchange of letters sufficient to create a legal contract. This seems particularly desirable when the engineer resigns one good position to accept another.

Bill Rendered. Where services are to be paid for on bill rendered, either there should be an agreement as to the rate, or else custom should so well fix the value of services that a dispute of the bill would be improbable, and quite unlikely to be successful. The credit, general standing, and character of the client should be known and be satisfactory in any such case.

With New Corporations. An engineer employed by the officers of a newly organized corporation should have some assurance that he is legally employed, unless his personal knowledge of these officers gives him adequate assurance that his services will be paid for. When, however, without formal contract, his services are rendered with the knowledge of the proper officers and accepted and used by the board of directors the company is bound.

Associations of Individuals. Previous to the inauguration of important operations, individuals often get together and employ an engineer to advance their interests in opposition to the scheme of a railroad, or a city, or some private corporation. In most cases of this sort the members thus associated assume no financial responsibility and the engineer employed should protect himself by a written agreement with one or more of them whose financial ability is sufficient to furnish suitable protection.

Architect's Compensation. The compensation of an architect very commonly is by custom or agreement a percentage of the cost of the work. Unless there are special provisions to the contrary, the owner pays the bill even though the contract may specify that the architect is the agent neither of the owner nor of the contractor. Custom seems to be clear upon this point.

Architects are often called upon to furnish competitive plans, and the provision frequently is " no pay if not accepted," or to be paid for " on adoption of plans " or " if we decide to build," or on condition that the structure " can be built for a certain sum." This is a contingent fee and sometimes the contingency never happens. The architect should have, in some way, a proper understanding of the terms before deciding whether to furnish plans.

OWNERSHIP OF PLANS

Ownership of Books and Plans. As to the ownership of note books and drawings, in the final analysis custom may often control. In building contracts it is now customary to provide that the plans belong to the architect. The owner of a private residence does not ordinarily want his plan duplicated. If the owner wishes to use the same plan for a number

of apartment houses, he should arrange with his architect to that effect. When competitive plans are invited there should be some understanding as to ownership after selection or award.

Copyright of Plans. Whether an architect or engineer may copyright plans seems somewhat in doubt. In any case it is not customary for him to do so. In this connection, it may be stated that the use of plans by the owner does not amount to publication and so does not authorize their use by others on the basis of publication without copyright. Maps and other prior publications may be used by an engineer for compilation but must not be used in a servile manner; there must be adaptation in some new way.

Note Books. An engineer in general practice substantially always uses his own note books and keeps them. Custom, no doubt, would sanction this and make it legal. The owner ordinarily has no use for them. A municipality, or a mill corporation which employs an engineer in general practice to do some special engineering work may properly desire to retain the note books, and an agreement to that effect should be made so as to assure the desired result. An individual or a corporation employing an engineer on a salary would properly expect to retain all note books and plans.

Inventions. An engineer or a mechanic who makes inventions directly in line with, and as a direct part of his employment, does not acquire title to them; they belong to the employer. When, however, his employment is not to produce inventions, and they are no more than suggested by his employment, they would ordinarily belong to him. As stated elsewhere, inventions made outside of hours and not of a kind for which the engineer is directly hired, belong to the employee. There are bound to be uncertain cases close to the line.

Engineering Skill Required. Where an engineer or architect is employed in a private capacity, he undertakes to bring to his work the average skill of those engaged in a like kind of work. If he makes a specialty of some class of engineering, as structural, or as sanitary, he undertakes to use the average skill of others who make a similar specialty in such class of engineering. He does not in either case insure absolute accuracy, unless by custom checks are possible and in regular use which allow absolute accuracy to be secured.

What Service is Guaranteed. The engineer does guarantee: 1. Reasonable learning, skill, and experience. 2. The use of proper care and diligence. 3. The application of his best judgment. 4. Absolute honesty. The burden of proof is on him who disputes the engineer's skill and other qualifications. The engineer is, of course, liable if negligence on his part can be proved.

What an Engineer may Attempt. If an engineer of good training and experience is called upon, as often happens, to carry out work not altogether within the line of previous experience, and he enters upon his duties modestly and with earnest purpose to succeed, it is probable that strong evidence would be necessary to hold him liable for faults in his work if there seemed reasonable probability of success when he attempted the work. An engineer who never attempts work which he has not already demonstrated his ability to carry out, is of little use in the world. Where the result of failure is likely to prove serious and the probability of success definitely doubtful, the engineer should decline the service, unless the necessity seems imperative with no better alternative apparently available.

Public Officers. In the case of engineers who are public officers, the general rule is that in the exercise of judicial functions, public officers are not liable for faults in their action. For ministerial duties which are clear and for which funds and other resources are available, the officer is liable for failure to perform his duty. The repairs of highways or of bridges have in some cases been held to be duties of this sort. In the practical application of this principle, some difficulty is experienced, and in some States the engineer has been held liable and in others not. Where many highways or bridges need repairs and discretion is used as to which shall come under the appropriation, judicial functions may appear to exist. The engineer may profitably look up the law as to his liability, in the State where he holds office.

Error in Survey. In one case a City Surveyor made an error in a survey which by law he was required to make for a land owner, and it appeared that he used ordinary care and skill. He was held not liable on account of the error.

Lien for Services. Whether an architect or engineer has a mechanic's lien on a structure upon which he has been engaged, is somewhat uncertain. Unless provided clearly by statute, an architect or engineer who simply designs will probably be held not to be entitled to the lien. An engineer who is upon the ground giving instructions, inspecting the work, doing work not altogether dissimilar to that of a foreman, will be entitled to a lien in many, but not all States. The same general rule will apply where Statute Law gives precedence to labor debts.

ENGINEER AND CONTRACTOR

Engineer's and Contractor's Relations. The relations between the engineer and the contractor deserve comment. To a large and a growing extent, the contractor now is also an engineer. Most large contracting concerns, if not directly controlled by men of engineering training, regularly

employ engineers in connection with their contract work. It is true of a considerable part of such work that the engineer is responsible only for the ultimate design, and the contractor for the execution. The complete success of the work depends commonly as much, and frequently more, upon the contractor's employment of methods and processes of handling the work than upon the design. Both engineer and contractor are necessary to the work, and the best results come when the two are working in harmony.

Honesty and Fairness. Most contractors are honorable and most engineers are fair. Some contractors have at times attempted to scamp their work and to employ sharp practices to profit at the expense of the railroad or city, and some of the drastic provisions found in some modern contracts have been introduced after an experience which suggested such a remedy. Young engineers often err in zeal for their clients and older engineers are human enough to shrink from involving their clients in expense due to lack of foresight or to some lapse on their part. Contractors have frequently shouldered some slight loss rather than subject the engineer to mortification of this sort. In general, however, both contractors and engineers want to do the right thing.

Starting fresh on a new project, the assumption should be that the contractor is honorable and that the engineer is fair. It is nevertheless the duty of the engineer to use methods adapted to secure good work for his client. Experience has established the necessity for systematic inspection so that work not up to standard shall not be accepted, whether the defect be due to lack of skill or care, or to the undue zeal of some foreman who is selected mainly for his ability to advance his employer's interests by pushing work, a quality which may naturally lead to occasional neglect in the quality of performance.

Engineer's Duty to Contractor. It is the engineer's duty to control the work and the contract should secure to him the necessary authority; his decision should be final certainly as to quantity and quality of work. His position as to such matters is, however, substantially that of an arbitrator or umpire, irrespective of who employs or pays him. The engineer engaged in construction work may feel that he represents more directly his employer in securing the proper quality of work; but in estimating quantities, measurements are seldom sufficient and complete enough to assure perfect results, and in making enough of them only to secure results substantially correct, it seems both moral and legal that the quantities shall be certainly fair to the contractor; where additional measurements are dispensed with, it is to save cost to the employer. Further than this it seems that the contractor has a clear legal as well as a moral right to stakes, facilities, and information, both in time and form, such as to give

him the most favorable opportunity reasonable to profitably and successfully carry on and complete his work.

Friendly Relations. The engineer and contractor should properly be on friendly terms. Under present conditions, however, it may be misunderstood if the relations are exceptionally cordial. The acceptance by the engineer of favors on a large scale from the contractor may suggest illegal relations and should be avoided. A contractor often offers to the engineer a cigar, or at the close of a contract a box of cigars, and without ill intent. One engineer preferred to offer the contractor as many cigars as came the other way, but without accurate count. The contractor seemed not in a position to refuse the cigars offered. Correct relations in this case were naturally suggested, and thoroughly friendly relations were maintained with no discoverable loss of self respect on either side.

THE ENGINEER AS AN EXPERT

Functions of Expert. The engineer as an expert may be employed in various capacities, not all of them in connection with legal controversies, but in cases not directly involving design or construction work on his part.

He may be consulted where an investigation of values or costs is desired, or where the merits of some development of natural resources is in question, as well as upon business matters where an analytical treatment of a subject is required.

In legal controversies he may be consulted, even before a suit is instituted, as to the bearing of technical questions involved; he may assist in the preparation of the case; at the trial he may assist the lawyer in the examination of witnesses; or he may serve as an expert witness.

Investigation to Precede Opinion. Before committing himself, when consulted, the engineer should satisfy himself as to the controlling facts and should make such investigation as seems necessary. In some cases his client's statement of facts may be inexact, incomplete, or inexpert, to the extent of being misleading. The engineer should not be quick to advise without a proper investigation and should stand ready to advise against his client's bias if such advice is wise. In some cases it is his duty to advise a conference or arbitration rather than a suit.

Ethics. In many legal controversies, both parties are honest but a difference of opinion exists as to the bearing of the law or of scientific principles upon the case. Some conscientious lawyers refuse to prosecute a case unless fully satisfied of its justice, but will defend any suit, and see that the client's interests are adequately protected. An engineer may take a similar position. If his client is liable to suffer injury unless well advised, the engineer may properly act to protect any rights his client

has. He should, however, not hesitate to inform his client as to the hopelessness or injustice of his case and should stand ready to withdraw if that appears to have become his duty.

An engineer sometimes declines to go upon the stand because cross-examination is likely to bring out some weakness in his client's case, and yet he may feel free to advise the lawyer in court in order to establish a serious weakness in the opponent's case. A man with high standards will act or refuse to act as seems to him right. A man with low standards will not be guided by anything written here.

Opinions. With relation to his work as an expert witness it has been stated in a previous chapter that, in general, witnesses may not state opinions except in the case of experts. Engineers often serve as experts and thus may express opinions. Expert opinion is allowable when the subject matter has the nature of a science or trade, which requires study or experience, or both, to understand it, so that persons inexperienced in the art or science who constitute the jury are likely to be left in doubt after all the facts are proved, unless aided by expert opinion. Whether such expert opinion may be introduced rests with the judge. The jury may or may not be convinced by it, but will give to it such weight as they see fit and decide upon questions of fact accordingly.

Qualifying. The expert must "qualify." He must state the skill, knowledge, or experience he possesses, which as a rule he has gained in his trade, profession, or calling. In some cases he is qualified by study or scientific research rather than by direct experience. Teachers of natural sciences have often been experts by virtue of their study.

Who are Experts. Locomotive engineers may be experts on many matters in the running of trains, as may also railroad conductors, brakemen, and others upon points with which they are familiar. Civil engineers or mechanical engineers who have made themselves familiar with the theory of brake resistances and know what practical results have been reached, are competent to testify as to the distance in which a given train could be stopped. This, however, is not strictly opinion evidence, certainly if the distance is stated within limits and not exactly.

Cross-Examination on Qualifications. Cross-examination of the expert as to qualifications is to be expected, and a favorite scheme is to ask the witness if he is expert upon some very narrow line of the field. A witness who well understood all about chains was asked if he was an expert on "foundry chains," a chain in a foundry being in question. Not having given especial attention to any chain used in a foundry, and having a fine conscience, he said "no" and was promptly excused. He should have stated that he thoroughly understood chains and foundry chains were chains, and could then, if pushed, answer "yes." The

engineer should consider carefully what he will state as his qualifications, and weigh carefully his answers in cross-examination as to these.

Court Decides on Qualifications. The court is the sole judge of the qualifications of a witness as an expert, that is as to whether he shall be allowed to testify as an expert. The jury, however, is the sole judge as to the weight or credit to be given to his testimony as to opinions, or as to scientific facts or principles propounded by an expert.

Opinions in Disfavor. Opinion evidence is in considerable disfavor. It seems possible, in many important cases, to obtain the opinions of experts in support of either side, and often diametrically opposed to each other. Medical men and handwriting experts often disagree, as do also engineers.

Scientific Facts or Principles. The evidence of engineering experts, to a large extent, is not "opinion" evidence. Quite largely the evidence is a statement of scientific facts or principles which apply to the case in hand. The function of the engineer, more often than not, is to discover and correlate the scientific principles and facts which apply, and to arrange them in such simple and clear form as to convince the jury. None but an expert could so present them and establish their bearing.

Measure of Value of Evidence. An attorney stated to a witness in his first expert case that "the value of your evidence will depend upon its soundness and the reasons you present to support it." The evidence was as to values to various parties of an improvement determined upon. These were established from statistical data, and by logical deductions from them. From these the commissioners who heard the case were able to draw conclusions without attaching much, if any, importance to the quality of the witness as an expert. The facts presented were what counted. Except by an expert, these facts would not have been presented.

Expert but not Opinion. A statement by a surveyor or engineer as to the amount of land which would be flowed at a given height of water may be expert, but certainly is not opinion evidence if the proper measurements and computations have been made. The statement is one of a scientific fact.

A competent civil or a mechanical engineer may express an opinion of the cause of an accident, but his testimony is far more convincing if he recites facts within his knowledge which lead him to the opinion he expresses. If the facts lead the jury to the same result, his opinion is a negligible part of the case.

Subordinate Opinions. So far as possible the engineer should arrange his evidence in such form that his personal opinion is not the deciding element. His judgment or opinion may determine what scientific facts or theories are to be applied in any case in hand, but any initiative of such

sort may still leave the jury to accept the theory on its merits rather than as the engineer's opinion purely.

Values. Statements as to values, or as to the probable effect of certain constructions, may be purely opinions. They may often be the logical result of scientific facts recited by the experts. Values of public utilities are often fixed by earnings or costs, or both combined, and a jury, with the facts suitably presented, often becomes capable of forming a correct judgment from these facts.

Attitude as Witness. When upon the witness stand, the answers of the expert witness should appear to be clear, frank, fair, and free from bias. They should also be so framed, if possible, that the inexpert jury may understand them. There may be cases where a juror's respect for expert testimony will be in proportion to his inability to understand such superior wisdom, but it will not do to count on this with twelve hard-headed men. Before a commission, clearness is equally desirable.

Cross-Examination. Under cross-examination, ordinary witnesses are sometimes asked if they had a " rehearsal " with their attorney. Such a question would rarely be asked of an expert, and a statement that a consultation was necessarily had would not prejudice the case. A witness under cross-examination should keep cool, consider well his answers, should not be driven into a show of anger, should not attempt to be " smart," and should avoid the appearance of bias even under cross-examination.

Yes or No. An answer " yes " or " no " may be demanded and in most cases must be given. Where either answer would convey the wrong impression, the witness may sometimes ask the protection of the court against answering either way. He may sometimes answer " yes and no " if this is appropriate and let the opposing lawyer ask an explanation if he wants to do so. An illustration of a question to which an answer "yes" or "no" is misleading is: " Have you quit your habit of beating your wife?"

Testing Expert's Knowledge. The cross-examination may seek to discredit the expert, and general questions not directly applicable to the case may properly be asked to determine his qualifications. Questions requiring computations need not be answered off-hand, but a willingness to compute and testify later may be appropriate. It happens, in rare cases, that an engineer states the results of a computation and later discovers an error; a return to the stand to correct the error is the proper course, and probably will not injuriously affect other testimony given.

Refreshing Memory. Where extensive computations have been made, the witness may have memoranda with him and use them " to refresh his memory." It is a necessity in this case. An engineer may always use memoranda to refresh his memory. He may testify that he remembers

the memoranda to be correct, or it will serve if he remembers that the memoranda were correct when made.

Maps and Photographs. He may introduce maps or photographs as evidence if he can state that they are correct. He may, however, use them to illustrate his testimony without establishing their accuracy. In the first case, as evidence the maps or photographs are commonly made exhibits, but in the latter case they are not.

Books of Science. The engineer may not read books of science as evidence. He may, perhaps, be allowed to cite the opinions or statements of writers of books, but these must have become his own opinions, or else his conclusions or statements of scientific facts, in order to be admissible in evidence.

In cross-examination, books of science may be used to test the expert's knowledge of the subject, in an effort to discredit him, and a witness not well grounded may appear to disadvantage in such case.

Opinion on Testimony in Case. The expert witness often sits through the trial and hears all the testimony given and is then asked his opinion, perhaps as to the cause of an accident testified to. If there is no conflicting testimony he may give his opinion. If there is any conflicting testimony, he cannot give an answer which depends upon his accepting or rejecting any part of such conflicting testimony. The jury only is permitted to pass upon the credibility of witnesses and the truth of testimony presented. If the expert has made an investigation he may have based his opinion upon that, and his opinion may not have changed as the result of any testimony he had listened to, but he can go no farther than this; he cannot discriminate between testimony offered by others.

Advice to Experts. The following advice as to expert testimony was many years ago made to the American Society of Civil Engineers by a distinguished engineer and expert, parts of which have been referred to elsewhere in this chapter:

"That the court always understands that an engineer has been previously advised in regard to questions upon which his direct examination will be made, and that he has prepared himself by study and reasoning to apply to the case in hand all of the scientific principles which are necessary to elucidate it.

"It is, therefore, unwise to attempt to conceal from the court that the engineer has been in consultation with the lawyers upon the side upon which he has been called, or that he has been paid or is to be paid professional prices for his services.

"No provocation on the part of a lawyer will justify an uncourteous reply, and it is unwise to give back a sharp or witty answer.

"If the lawyer uses improper language in addressing the witness, the latter may appeal to the judge.

"If questions requiring study and research are put to the witness, he may reply, 'I have not considered the subject under that aspect sufficiently to reply,'

or 'I shall require a little consideration before I can reply; I will make a note of your question, and answer it as soon as possible.'

"A witness is often called upon to express an opinion on some subject which is a matter of exact or approximate measurement and calculation; it is often impossible for him to make such calculations accurately in the presence of a roomful of people. His proper course, under such circumstances, is to make a note of the question and inform the counsel that he will make the calculation and give it in writing. In strict law, however, a witness on the stand is not compelled to make any calculations except those of a simple and elementary character."

Services before Trial. Before the trial, the expert engineer can render valuable assistance in defining and formulating the technical issues involved, in indicating the documentary evidence and the physical facts necessary to the successful conduct of the case, as well as in securing the witnesses to establish important facts or scientific principles. This will be done in consultation with the lawyer. The engineer usually has acquired a more thorough habit of investigation than is common with lawyers. Most lawyers are inexpert in matters of engineering science, and the engineer's services may be of great value in the preparation of a case. He should anticipate so far as possible the expert testimony on the other side and prepare to meet it. The lawyer must usually be advised as to what questions to ask, and witnesses should know the scope of the evidence they are expected to establish.

The advising expert, in anticipating cross-examination, should not allow himself or others to go on the witness stand if the probable effect of cross-examination will be to bring out facts prejudicial to his client to an extent sufficient to more than offset the favorable evidence established by the direct examination. Sometimes more favorable results may be extracted by the cross-examination of an honest expert on the opposing side than can be expected from one's own witness. The expert engineer adviser ordinarily must shape the questions for such cross-examination.

To Know Facts. Engineers or surveyors testifying to measurements should know them to be correct, and should read the tape or the transit if necessary to do so, and also test the tape where precise measurements are involved. Measurements read from drawings may be attacked as hearsay, while field measurements of lands or actual measurements of structural parts will be competent evidence.

Compensation. The question sometimes arises as to what compensation an expert witness is entitled to, and involved with it whether one may be summoned as are other witnesses when expert testimony is expected of him. It has been held in some jurisdictions that a public duty exists for everyone to contribute his share in securing justice for others and the expert must do his duty in this way at an ordinary witness' pay. This

rule does not prevail generally. Under it a witness must testify to facts in his knowledge, even to scientific facts applicable to the case. He certainly cannot, under summons as an ordinary witness, be required to make an investigation, and it is doubtful if he can be asked for an opinion. If he can so control his mind, under such circumstances, as not to have formed an opinion in answer to a question, he is doubtless within his rights. If he has seen or directly heard anything of a sort to which any other witness must testify, he is in the position of an ordinary witness and must testify. The engineer summoned into court should find out the law as to compensation in the State in which the court is held.

Agreement for Expert Services. An engineer who is to serve as an expert witness at the solicitation of one party to a suit should have a definite agreement with this party or his attorney as to his remuneration. Whether the agreement is written or oral is a business matter in which the credit and good faith of the party and his attorney are involved. In some cases the agreement should be with the attorney personally and not as the agent of his client, especially if the latter is financially incompetent. The amount of remuneration for expert witnesses is sometimes fixed by statute, but this may or may not allow a private agreement to be made for greater compensation.

Court to Appoint Experts. Opinion evidence is in disfavor, as has been stated, and one remedy suggested is to have one expert appointed by the court instead of one or more by either party to the suit. In a trial in court the law applicable is best determined if each lawyer digs out the points of the Common Law or of Statute Law involved which support his case, while the judge makes the final ruling. In a similar way each party ought to have a scientific expert investigate in his interest the natural laws and scientific principles involved, the final judgment being in this case reached in the tribunal of the court, at present the jury.

There would be some advantage if it were possible to have the application of scientific principles or laws decided by a just and competent expert in such principles, much as the learned judge decides questions of municipal law. There are several difficulties in the way of attaining the millennium in this way. The many judges now sitting cannot have personal knowledge adequate to insure the selection of competent and unbiased experts in various lines of business. It furthermore unduly expands the powers of the judges, some of whom are elected, or are partisan appointees; while there may be an appeal from a decision as to a point of law, there can be no appeal from an appointment injudiciously made.

Jury Decides Facts. Finally, unless our system of procedure in law is altogether revolutionized, the jury must still be the sole judge as to the facts, and would not and could not be bound by the opinion of even an

official expert. In the future, as in the past, juries will commonly be favorably impressed with sound evidence based on scientific principles and clearly presented, and will attach such importance as they please to opinions pure and simple.

Valuation. The employment of engineers in the valuation of public utilities is assuming growing importance, and is in some sense expert work whether it brings the engineer into court, before commissions, or only before boards of directors, or before municipal authorities. Much new literature is appearing upon this rather new development, and financial and physical laws and principles must be understood as well as the bearing of Statute Law and Common Law upon the subject.

PART II

CONTRACT LETTING

CHAPTER XIII

ADVERTISEMENT

WHEN an Engineer is employed upon a project which looks towards a Contract for construction, the first step ought to be a preliminary investigation and report upon the project. In many cases such an investigation and report would show to the promoters that the project was impracticable or unwise from the financial standpoint and should be abandoned without further loss, or that some important modification should be adopted.

Sometimes the projector of an enterprise does not ask for such service but is disposed to push ahead without any preliminary report. In many cases it is the professional duty of the Engineer to suggest to his client the necessity that a preliminary investigation and report should be made. Capitalists are not always wise enough to appreciate the necessity for such preliminary work unless well advised by others.

Sometimes the preliminary work has already been done by another Engineer. For his own protection an Engineer called in under such circumstances is justified in looking into the proposition far enough to satisfy himself that it is wise to become associated with it. An Engineer should be cautious about going far into any venture that has not had a proper preliminary investigation which shows it to be justifiable.

It should be further understood that an Engineer who has had previous experience in enterprises of a similar character will often be better qualified than any one else connected with the project to determine the proper procedure in carrying the work through its various steps to a successful conclusion.

The steps leading to a Contract for construction may then be as follows:

1. Make preliminary examination and report as to feasibility, or as to the methods in which the work may be carried out.

2. Prepare preliminary plans and estimates.

3. Secure proper authority for the letting and construction of the work.

4. Determine the steps legally necessary in letting the Contract.

5. Prepare construction plans upon which to draft Contract and Specifications.

6. Secure any lands or right of way necessary.

7. Prepare forms for: (*a*) Advertisement, (*b*) Information for Bidders, (*c*) Proposal, (*d*) Contract, (*e*) Bond, (*f*) Specifications.

8. Advertise.

9. Receive Proposals.

10. Open Proposals and award Contract.

11. Have Contract signed and Bond furnished.

This chapter and those which follow are devoted mainly to the preparation of the papers and forms necessary or desirable in Contract letting, but each of the steps mentioned above requires more extended consideration.

1. The preliminary examination and report may sometimes consist of a very general consideration of the project; in many cases it will involve the second step.

2. The preliminary plans and estimates will often be necessary to the preliminary report. If not, it will seldom be wise to go ahead without them, for a reasonably correct knowledge of the cost, and of the general details of the scheme to be followed, should be promptly acquired. In many cases sub-surface investigations should constitute a part of the preliminary work.

3. By the time this has been done and sometimes even before making the preliminary plans and estimates, the Engineer in charge should satisfy himself as to the fact that he is acting under proper authority. If employed by an individual, he should ask for, and receive a letter of instruction as to what is wanted of him and what duties and responsibilities he is to assume. If employed by a private corporation or a municipal corporation as Engineer in charge of the project, he should know that the corporation, through definite action on the part of the proper officers or by the direct act of the corporation itself, as the case may be, has given lawful authority for the prosecution of the work. An Assistant Engineer may be under the orders of a higher official and then not be charged with responsibility in this matter. Nevertheless, in some cases it may be wise for him not to accept employment if he has satisfied himself that the project is likely to encounter serious difficulties because necessary legal formalities have not been observed.

Sometimes the charter of a municipality gives the Commissioner of Public Works (or some other Engineer in high office) power to directly

authorize construction work; sometimes a vote of a City Council is required together with the Mayor's approval. In a New England town, it is necessary to have a vote in town meeting authorizing the work and appropriating money for it. In this case a "warrant" (or notice of intention to act in the matter) must have been posted or advertised in the call for the town meeting; without this a vote is not legal or effective.

In the case of some private or quasi-public corporations, specific authority may be necessary, sometimes from the stockholders, often from the Board of Directors. Possibly one or more of the higher officers may have legal power to authorize the work and appropriate money for it. The powers of a corporation, or its officers, municipal or otherwise, are determined by its charter; the corporation may, perhaps, by general action have delegated many of its powers to its officers, but in some cases powers can be delegated only by special vote for a specific purpose. Considerable care needs to be exercised by somebody to be sure that adequate authority has been given.

4. The steps legally necessary in letting a Contract are important in United States government work, in State work, and in municipal work. With work for individuals and for private or quasi-public corporations, there are seldom any restrictions, and where there is no probability of abuse of power or the exercise of favoritism, there is often an advantage in having a free hand. In the case of very large cities, the tendency to show favor to political friends has so often existed, that a provision requiring advertising seems wise and substantially necessary.

All of the legislation of a city is undertaken under a charter or franchise bestowed by the State. Contracts by a municipal corporation, a county, or a State must be within the act creating them, and within the privileges and powers of their charter, constitution, or organization.

If a charter requirement exists to the effect that Specifications shall be prepared and published and the work advertised and Contract awarded to the lowest bidder, it is imperative that the prescribed course be followed. Bids even for public work need not be invited unless it is expressly required by statute, charter, or ordinance.

The statutes of the United States are stringent in their provisions requiring advertising before letting United States government work and also for securing supplies and services other than personal services. In very many cities there is a provision, sometimes in the city ordinances, sometimes in the charter from the State (the incorporating act), that work of any considerable amount shall be advertised; and the Engineer in charge of work to be contracted for should understand the legal requirements in this direction. In Massachusetts there was formerly a special requirement of a

peculiar nature which has, however, been amended. It was provided that in the letting of any Contract for State work the following provision must be included:

A. The Contractor shall not request or require any laborer, workman or mechanic in his employ, or that of any sub-contractor or other person doing or contracting to do the whole or a part of the work to be done in this Commonwealth, to work more than eight hours in any one calendar day, and shall give preference in employment first, to citizens of Massachusetts, second, to other citizens of the United States, and shall allow all employees on said work to lodge, board and trade where they choose.

The peculiarity in this requirement was that any State employee who failed to include this in a Contract for State work thereby committed a misdemeanor and was subject to penalty. This was therefore a provision as to "letting" the Contract, as distinct from the carrying out of the Contract. Members of a State commission were at one time indicted on the ground that the printer who printed some blank forms for them did not have this provision stated when he was given the printing to do. The prosecution in this case was later abandoned; but under circumstances only slightly different, the officials might have been found to have transgressed this law. The enforcement of the provision thus put into the Contract is now required with a penalty for non-compliance, either by a State employee or the Contractor, and similar provisions exist in other States. The statute in such a case should be carefully examined to determine what, if any, requirements there are with relation to letting Contracts.

The statute or ordinance covering the matter sometimes provides that the work shall be let to the lowest bidder; oftentimes it does not. The Engineer should know, before advertising or before preparing the various forms necessary, what are all of the legal requirements connected with the letting of the work, and for this he must be guided by the statute or the ordinance. There may be other requirements as to carrying out the Contract not pertinent in this paragraph, which deals with the letting.

5. The construction plans should be sufficiently complete so that adequate Specifications, together with the Contract, may be prepared from them. Although some detail plans will necessarily be prepared during the progress of the work, the plans should also be sufficiently complete to allow the Contractor to make an intelligent bid, including here, also, the results of sub-surface investigations in many cases. Oftentimes bids on unit prices allow complete liberty in the preparation of the detail plans. In architectural work, particularly, where lump sum bids are usual, it is nevertheless common practice for detail plans to follow rather than precede the letting of the Contract, and the bid is made with knowledge of the contingencies involved. With the Engineer there is opportunity for the

exercise of good judgment as to how far the plans shall be complete before bids are made. It is necessary that plans and Specifications be sufficiently complete to present a common basis for all bids.

6. Lands necessary should be secured before letting the Contract. It is unwise to risk difficulty with the Contractor due to failure to provide the lands required. Frequently this transaction must wait until the Contract plans are ready; not infrequently it may be wise and quite possible to secure all lands necessary as soon as the preliminary plans are ready, or to take an option on them by bond or other adequate means.

7. The preparation of the various forms required is of great importance, and this chapter and those following are devoted to a discussion of these forms.

8. The subject of advertising is next in order, and this chapter deals specially with the Advertisement. At the outset, the question arises: "Why advertise?" It may be to comply with the law, to secure the advantages of competition, or frequently both. The character of the Advertisement may well depend upon its purpose. If purely to meet the requirements of law, a perfunctory performance is enough, such as is shown in the following:

B. U. S. ENGINEER OFFICE, NEW LONDON, Conn., July 27, 1905. Sealed proposals in triplicate for dredging in West River from New Haven Harbor, Conn., will be received here until 12 o'clock noon, Aug. 26, 1905, and then publicly opened. Information furnished on application. C. F. POWELL, Lt. Col., Engrs.

In this particular case the Engineer probably knows every one of the small number of dredging companies or firms available. A letter to each of them serves well the purpose of competition; the Advertisement complies with the law. Some other Advertisements for United States work contain far less than seems desirable to secure suitable competition.

Where Advertisement is required by law, the exact terms of the statute or ordinance must be scrupulously followed. The requirements of a statute prescribing the mode and time of advertising for bids are mandatory; something "equally good" is of no value for compliance with the law. Advertisement in five different issues of a paper, for instance, has been held by the courts not to be equivalent to Advertisement for five consecutive days where the latter was required, and a Contract let under it was held illegal. A paper "published" in a certain city is not the same as a paper "printed" in that city. A Contract which required the mayor's approval to allow it to be let without Advertisement is not rendered valid by the mayor's signature ratifying the Contract after it is made. Complete and specific compliance with the law is imperative.

In some instances where competitive Proposals do not produce any advantage, the courts have decided that advertising is not essential, and there are a number of cases where this proposition applies. This is true in cases of emergency, or with Contracts of practical monopoly, where scientific skill is required, and where materials must be selected upon tests. An important case is that of "patented inventions," and the courts in some States have held the municipality may contract without advertising for patented or monopolized articles, or may specify such articles. In some States, however, the courts have held otherwise, so that it is necessary to know what the law is in any particular State where the Contract is to be let. In some States, the city may contract without advertising for the direct use of the city itself, but not in cases where property of citizens is to be assessed to pay for the improvement.

Plans and Specifications in sufficient detail must be provided previous to Advertisement. This is necessary to secure bids upon the same thing, and it is necessary that the bids should be unqualifiedly for the same thing; otherwise there is not competition.

An act which requires a Contract to be given to the lowest responsible bidder is not observed if the Contract is awarded on plans and Specifications prepared by different parties; there must be a common standard. It is further obligatory upon the officers of a city or State to execute the Contract in accordance with the terms and Specifications by which the bids were made. Otherwise, the Contract work, strictly considered, is illegal, as no competition was had for the work as executed. The courts recognize this principle, and have held the work illegal in some cases where the changes were material. Minor changes can hardly be avoided. It is seldom that any one takes the trouble to pursue any such illegal action; it is difficult to fix the blame upon any official financially responsible, and it is not easy to connect the Contractor with the irregularity. A suit to enjoin payment to the Contractor for work so done would be successful, probably, only in cases where the change in requirements was very substantial. It is difficult to prevent or punish graft in the government of some of our large cities.

Where the law requires letting to the lowest bidder, letting to any other bidder is illegal. Nevertheless it is legal not to award the Contract to anyone and to re-let. It is wise in case of re-letting, that the Contract or the estimated amounts should be sufficiently changed, if possible, so that the bids the second time are not completely upon the same work as they were the first time. Under such circumstances, it cannot be contended that the lowest bid was that made on the first letting, because that bid was not made on the final Contract upon which the second bids were presented and the final award made. Where the term "lowest responsible bidder"

is used, in the absence of fraud it is held that the discretion of the Commission or Board is conclusive.

The law regards provisions touching competition to be for the protection of the public and not of the bidder. As a result, any citizen may raise a question which a bidder, not a citizen, cannot be entitled to raise. An unsuccessful bidder, if a citizen, may thus bring suit, or if not a citizen, he may succeed in inducing some friend, a citizen, to bring suit.

In case the law is not complied with, several results follow. If a sewer assessment, or a betterment tax is assessed against an abutting estate, the owner may legally and successfully refuse to pay. If a citizen brings a suit to enjoin the city from paying the Contractor, the courts will enjoin the city; the Contractor will not be paid; the Contract is not a legal Contract. The Contractor cannot sue for work done and materials furnished, for the basis for this would be an implied Contract, and the real trouble is that even an express, written Contract is illegal because not advertised. The law as to advertising was passed to protect the tax payer who cannot otherwise protect himself, to prevent favoritism in letting by prescribing advertising in order to secure competition. It is the duty of the Contractor to know that the Contract is legally entered into. He has opportunity to protect himself and the law puts the burden on him to do it. Any other view of the law would allow to be done the very thing the statute was passed to prevent being done.

To secure competition, a good understanding of advertising is of value. A considerable part of all advertising done in any business is ineffective. While advertising is somewhat expensive, an additional bid lower than would otherwise be secured will fully justify the cost of much advertising; undue length of Advertisement, however, diverts rather than attracts attention. The Advertisement should stand for a length of time sufficient to give ample opportunity for Contractors to see it and to have time to prepare careful bids. Often the statute specifies the length of time and the publications to be used. For important work more time than legally required may sometimes be wisely taken, and the Advertisements may be published in prominent engineering journals, whether this be required or not. The Engineering News and the Engineering Record (now combined in the Engineering News-Record) have long made a specialty of such advertisements, which come from all parts of the United States.

The Advertisement should be in form to attract attention, and contain information sufficient to attract desirable bidders; to show any bidder whether the work is in his field of work, within his financial resources, and whether it can be done at a time when his force and equipment are available. Such information may prevent incapable bidders from competing. To attract attention, it should have in suitable type a heading such as Water Works, Sewers, Highway Bridge, like the following sample:

C. EARTH DAM.

BOARD OF WATER COMMISSIONERS.

43 Bridge Street, Springfield, Mass.

Sealed proposals will be received by, etc.

To meet other requirements, it should in general state clearly the general character of the work to be done; for whom it is to be done; where it is to be done; the amount or approximate quantities in sufficient detail, frequently by items; the date for beginning and ending the work; where plans can be seen or obtained and where forms for Proposals, Specifications and Contract can be obtained; the person and place to which bids are to be sent; the date and hour for closing of bids; the place, date and hour for opening bids; the amount of the security to accompany bid and whether Bond, certified check, or cash, and to whom payable; the required amount of the Contract Bond; whether the right is reserved to reject any or all bids, or whether the bid of the lowest responsible bidder will be accepted. The name of the Engineer should appear. The Contractor is entitled to know this. With some Engineers he may be unwilling to bid at all. A further very desirable provision is that bids must be made on the printed forms furnished, the reason for which will appear later. In special cases, there will be reason for adding some special information to meet special conditions.

Many matters of considerable importance may properly and much better be left for the next form, Information for Bidders, or, perhaps, for the Proposal. An Advertisement which is too long is less effective as well as more expensive. Whether long or short, all legal requirements must be complied with. Below is a sample form for an Advertisement which contains most or all of the necessary requirements.

D. Bids opened March 10.

SEWERS

FRANKTOWN, MASS.

Sealed proposals or bids for the construction of a sewer will be received by the Board of Sewer Commissioners of the City of Franktown, Mass., at their office in the City Hall, until two o'clock P.M., Thursday, March 10, 1917, at which place and time the bids will be publicly opened and read aloud.

The following is an approximate statement of the work to be done.

1971 lineal feet of 7′6″ sewer
2417 lineal feet of 7′9″ sewer
1557 lineal feet of 8′0″ sewer
440 lineal feet of 8′6″ sewer

all to be of circular form and built of reinforced concrete; together with manholes, connections, etc.

Information for Bidders, form of Proposal, Specifications, Contract, and Bond are contained in a pamphlet which may be obtained from Richard Roe, City Engineer of Franktown, Mass., at his office in the City Hall. All bids must be made upon the regular forms furnished. Plans can be seen at the office of the City Engineer.

Work is to be begun within ten days after the signing of the Contract, and must be complete by November 1, 1917.

A properly certified check for $4500 without conditions, drawn upon some bank in Boston or New York, and payable to the order of the Board of Sewer Commissioners of Franktown, will be required with each bid; checks of unsuccessful bidders will be promptly returned; a satisfactory surety company's Bond for $35,000 will be required with the Contract.

The Board reserves the right to reject any or all bids or to accept any bid it may deem to be for the best interests of the City.

JOHN DOE,
HIRAM WEEKS,
ARTHUR SMITH.
Board of Sewer Commissioners.

RICHARD ROE, City Engineer,
Feb. 4, 1917.

This simple Advertisement contains nearly or quite everything that is necessary for ordinary Contracts. Although there may be several other provisions that are desirable or necessary in special cases, it should be understood that many matters that find their way in Advertisements, as they occur in present practice, may well be saved for the Information for Bidders, which will be contained in the pamphlet which ordinarily contains the Proposal and the Contract form also. As has been stated, it is desirable to keep the Advertisement short because it is in that form more effective and also because publication of the Advertisement costs more than the simple printing under the item of Information for Bidders in the pamphlet.

As a sample of additional provisions, to be added in special cases are the following two which will explain themselves:

E. The site of the work is on the town line between Granville and Blandford, Mass., about twelve miles west of Westfield, Mass. The work includes the construction of an earth dam containing 135,000 cubic yards rolled embankment, three miles of roads, gate house, spillway, etc. It is desirable that prospective bidders visit the site of the work as early as possible on account of the distance of the work from the railroad and the uncertainty of the weather at this season of the year.

From another Advertisement:

F. Plans and specifications may be seen at the Village Clerk's office. The Engineer will be in Lake Placid after July 29 for the purpose of going over the ground and furnishing any information required."

Each of these contains information which ought not to be left for the Instructions to Bidders.

Sometimes there are peculiar provisions with relation to payment which might attract or repel a Contractor, of which the following two are examples:

G. Said Garland County, Arkansas, agrees to pay to the successful bidder, or contractor, the sum of ten thousand ($10,000) dollars per year until said building is fully paid for.

H. The work will be paid for in special tax bills issued against the lots and parcels of ground liable therefor.

It is appropriate that these should appear in the Advertisement.

In rare cases a very brief Advertisement which will catch the eye is entirely sufficient; the following appears to be a case of that sort:

I.

Harbor Work, Valparaiso, Chile.

Works amount £2,500,000 ($12,500,000).

On the 2d of April, 1906, bids will be open in Santiago (Chile) for the construction of docks and improvement of the harbor of Valparaiso.

See plans and specifications in Washington, D. C., Chilean Legation, 1228 17th Street; in New York, Consulate General, 135 W. 11th Street.

Here the work is so important that any Contractor interested would expect to look into the matter quite fully, and this brief note is sufficient to attract his attention.

Bids for ordinary work are sometimes made very brief, and where the work is likely to be done by a local Contract or they may be sufficient. The following is an example of such an Advertisement:

J.

Sewer Construction

Bids will be received by the Board of Public Service until 12 o'clock noon, Central Time, Monday, August 21, 1905, for the construction of 5380 lineal feet of 36 inch sewer with 22 manholes and 38 catch basins.

Bids may be for either brick or pipe construction or for both. Approximate depth 11 feet.

While this may serve the purpose, in general it is better to spend a small amount of money to give somewhat more information.

Referring to the sample Advertisement, *D*; in the upper left hand corner occurs the statement "Bids opened March 10," which is likely to quickly catch the eye of a Contractor and interest him if his plant will be available at that date.

9. The next item of importance states that "sealed Proposals" "will be received." A later chapter deals specially with the Proposal. It is provided elsewhere in the Advertisement that "all bids must be upon the

regular forms furnished." The phraseology takes different forms in different Advertisements examined, and the following are samples of alternate phraseology taken from actual Advertisements:

K. Bidders must use the printed forms, as none other will be received.

L. The City Engineer will furnish bidders with a blank form of proposal. No proposal will be considered unless submitted on such form.

M. All proposals must be made on the regular forms furnished by the State Geological Survey Commission, to be obtained through the office of the Highway Commission. Bids otherwise made out will not be received.

The particular value of this provision is that the printed form of Proposal should further state that the bidder, if the Contract is awarded to him, agrees to "sign a Contract in the form on file with the City Engineer" or other official specified, leaving no opportunity for a claim by the bidder that he had always been ready to sign a Contract, but not in the form which he is asked to sign.

10. Another item refers to opening the bids, and the award of the Contract. The statement in the Advertisement is that the bids will be "publicly opened and read aloud." The word " aloud " does not appear in most Contracts, but it would seem that a Contractor thinking of bidding on the work would be favorably impressed with the fact that a distinct statement is made that he will have opportunity to hear the reading of the bids; his instinctive feeling is likely to be that everything is to be straight and above-board in the work, and that impression on his mind ought to have some commercial value to the municipality or party letting the work.

11. The signing of the formal Contract and furnishing the Bond follow. It has already been stated that the use of " the regular forms furnished " requires the signing of the Contract in the form required, and also the furnishing of a satisfactory Bond. The function of the certified check or a preliminary Bond is to insure such action by the bidder.

The provision for a certified check needs some extended comment. First, as to the amount of the check, the proper statement is that the amount should be sufficient to cover the probable difference between the lowest bid and that next above it, together with a sufficient allowance to cover any delay liable to occur if it should become necessary to re-let the work, and in addition to this the cost of advertising and other items connected with the re-letting. Just what this amount should be can best be determined by the good judgment of any Engineer who is frequently letting work of a similar character.

The provision is made in some cases that a certified check shall be for

some specified per cent of the bid. This has been in actual cases, sometimes 2 per cent, sometimes 5 per cent, and sometimes 10 per cent. A provision in this form has been criticized because the filing of such a check with the City Clerk or some other official leaves an opportunity for unscrupulous people to get together and determine the amount of any bid from the check deposited. Sometimes a check for " not less " than 5 per cent is asked for. There appears to be no reason why a fixed sum should not be required, based upon the proper percentage of the Engineer's estimate of the cost of the work. The amount of the check will then be equal and fair to all the bidders.

While many matters of detail will best be left for Information for Bidders, the Advertisement should give sufficient information so that a bidder coming from a distance may secure his certified check before leaving home, making it possible for him to prepare his bid at the site of the work and file it at the specified place, and also await the opening of the bids, one trip only being necessary.

Instead of a certified check, provision is sometimes made for a surety company's Bond, for a draft on New York, for a cashier's check, or for cash, and the reading of the following extracts from actual Advertisements will give some idea of what people have done in this matter:

N. No bid will be received and deposited unless accompanied by a properly certified check for the sum of.....

O. No bid will be received unless accompanied by a Bidder's Bond as hereinafter set forth on page ....., or by a certified check upon a State or National Bank or a Trust Company established in the City of Louisville (or the City of New York) for an amount not less than seven (7) per cent of the total amount of the accompanying bid, payable to the Commissioners of Sewerage, such check to be returned unless forfeited under the conditions herein stipulated.

P. No bid will be received unless it is made on the blank form furnished from this office and is accompanied either by gold coin or by a check equal to five per cent of the amount of the proposal, certified by a solvent bank in the State of California, payable to the order of the Secretary of the Board of State Harbor Commissioners.

Q. A bond with sufficient sureties or a certified check made payable to the City Treasurer for the sum of $200 must accompany each bid or the same will not be considered.

R. All bids must be accompanied by a City Clerk's or Treasurer's receipt showing the deposit of $100 in cash guaranteeing the execution of the contract after award of same.

S. Each proposal shall contain a certified check or a New York or Boston draft in the amount of $5,000 (five thousand dollars) payable to the order of John

J. Turner, Treasurer of Water Commissioners, Amsterdam, N. Y., as a guarantee that the bidder will enter into contract in case of award to him, or in case of his failure so to do, then said amount shall be absolutely forfeited to said Water Commissioners.

T. A certified check on a New Orleans bank, in the sum of $10,000, deposited in accordance with the terms of the specifications, will be required of each bidder.

U. Each bid shall be accompanied with a bond in the sum of $10,000 and signed by two sureties, for the acceptance of the contract, if awarded by the Board of Trustees, or the bidder may deposit with the Board of Trustees, in lieu of such bond, a certified check or bank certificate of deposit, payable to the order of the Board of Trustees, or cash equal in amount to the bond as above required.

V. The checks of unsuccessful bidders will be returned at once.

W. The check of the successful bidder will be returned as soon as he has executed the proper bond and it has been accepted.

X. No check or draft, thus presented to the Board of Water Commissioners, shall be returned to the bidders until after the award and signing of the contract and the furnishing of satisfactory sureties and bond for faithful performance by the successful proposer. No bids shall be withdrawn after they have been opened by the Water Commissioners.

Y. Each tender must be accompanied by an accepted check, draft or cash deposit for the sum called for in the form of tender supplies, which will be subject to forfeiture in case of failure on the part of the contractor to enter into a written contract with approved sureties if called upon to do so.

This seems a trifle obscure in statement and is therefore an example not to be followed.

The statement below seems to be that all certified checks will be forfeited in case the successful bidder fails to enter into the contract. This, certainly, is not what is intended, but is what it says:

Z. A certified check for $350 must accompany each bid, which will be forfeited to the city in the event the successful bidder does not enter into contract with good and sufficient bond within ten days from the date of the award.

Whether a Bond or certified check or cash shall be used, deserves more than passing attention. In the sample advertisement, *D*, provision is made for a certified check, and this appears clearly to be the best practice. When a check is certified, the bank at once withdraws the amount of the check from the depositor's account. The bidder then loses a very small amount of interest on his deposit for the short time which elapses before his check is returned. The Advertisement should state that the checks of unsuccessful bidders will be promptly returned.

A surety company's Bond involves an expense to the Contractor which he does not care to assume. In addition to that a Bond seems inappropriate for this purpose. There is no contingency arising of the character that demands a Bond. The bidder, if he is to take the Contract, must have sufficient financial responsibility and credit so that the filing of a certified check is not in any way a serious burden to him, and he is clearly the proper party to protect the City, railroad, or Owner in case he fails to sign the Contract if awarded to him. A Bond in a general way is to cover a more remote contingency which neither he nor the party letting the Contract anticipates will ever occur. The Bond is appropriate to provide for the fulfilment of the Contract, but seems inappropriate for the preliminary deposit. Furthermore, the party letting the Contract is somewhat likely to find it necessary to sue on a Bond in case of dispute, so that the Bond is advantageous neither to the Contractor nor to the other party of the proceeding, the railroad, the City, the Owner.

A certified check without conditions is substantially equal to cash. Unless it is without conditions it should not be accepted. In the case of cash no suit is possible unless the bidder sues to recover it, in which case the burden of proof is on him and any delay is to his disadvantage. It seems somewhat harsh, also, to compel a bidder to furnish cash and in many cases such a requirement would operate to prevent bids being made and so defeat the object of the competition.

In the case of a certified check, it is conceivable that the bidder might send word to the bank to stop payment in case he had any disagreement or dispute with the party letting the Contract. But bankers state that, in general, a bank would be very slow to refuse payment on a certified check and the reasons for refusing payment would have to be very clear and satisfactory to the bank. The depositor has no legal right to stop payment. In the case of a bank in some small city or town, it might happen that the bidder was an officer or director of the bank and could secure non-payment even of a certified check, in which case suit could be brought against the bank with good prospect of success. To avoid difficulty of this sort, it is wise to specify that the check shall be drawn on some bank either of a specified neighboring city or of one of the larger cities of the country.

It is wise in case of a certified check to carefully inspect the certification, because in some cases a rubber certifying stamp has been used for certification and the signature has been that of the cashier of the firm who bids and not of the cashier of the bank. In the Proposal a provision should be inserted to take care of this matter. It is clear that an informality of this sort whenever discovered should make a bid informal and require that it be thrown out.

Sometimes a New York draft is suggested, but in the opinion of some bankers this is not so good a protection to the party letting the Contract as a certified check, in the general practice of banking, because an order to stop payment on a New York draft might be accepted by a bank which would refuse to stop payment on a certified check. A cashier's check is seldom specified and has no particular advantage.

The provision is further made that a Bond shall be required for the faithful performance of the Contract. The amount of this Bond should be determined by the amount of protection needed, and in the case of some Contracts the percentage of the total amount of the Contract will be quite different from what it would be in others. Twenty-five per cent of the Contract price is a very common provision. According to present practice, the charge made by bonding companies depends upon the total Contract price, rather than upon the amount of the Bond required. A Bond unnecessarily large, however, should not be specified, because the bonding company may refuse to bond some efficient and desirable Contractor who has not acquired high financial standing and credit but who could readily secure a Bond for a reasonable amount. Good judgment should be used in fixing the amount of the construction Bond.

The Bond should be from an approved surety company; a personal Bond is less satisfactory in many ways. In the majority of cases, an individual acting as bondsman would probably refuse to pay unless suit was brought against him. Experience has shown that in a city a citizen serving as bondsman on a city Contract has seldom been sued; there is an element of unpopularity about it. A surety company is in business of that kind and has a reputation to maintain, and any trivial refusal might seriously affect its reputation, so that suit would seldom be necessary. Furthermore, the surety company fully understands that it is part of its business to investigate the bidder, as to both his financial responsibility and his ability as a Contractor, before accepting him, so that the surety company's Bond is a considerable assurance against any difficulty occurring, while a personal bond simply serves to make good a loss. Furthermore, in case of the death or failure of the Contractor, the surety company often has facilities for putting another Contractor promptly upon the work, and this is a further assurance against trouble occurring and one which does not exist in the case of a personal Bond. Similar advantages of a surety company's Bond exist where bank or public officials are required to be under Bond.

If the Contractor is a man of unquestioned financial responsibility, the requirement of a Bond from a surety company would seem to be unnecessary, unless, in the case of State or City, some statute or ordinance requires it. The Chief Engineer of a railroad might often show good judgment in not requiring it. In the long run the Company pays the cost of the Bond.

It seems to be well recognized that the Advertisement should state when the work is to be begun and when completed, and this seems to be wise and proper provision; a Contractor whose force is engaged upon a Contract not quite completed may often find it undesirable to bid on work which must start before his other Contract is out of the way. A difference of a few weeks sometimes would make a difference as to whether or not he should bid, and the information is sufficiently valuable so that it ought to appear in the Advertisement of every Contract.

There are sometimes peculiar legal requirements to be observed in connection with the letting of Contracts or in making bids, and in such cases it is often extremely desirable that these provisions should be specified as early as in the Advertisement and not left for the Information for Bidders. The following examples illustrate this point:

a. The usual conditions relating to tendering as prescribed by City By-Law must be strictly complied with, or the tenders will not be entertained.

b. No bid will be considered unless accompanied by a certificate from the City Solicitor that the provisions of an ordinance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860, have been complied with.

c. All contracts for State highway construction are subject by law to the approval of the State Geological Survey Commission and must be so approved before they can be executed.

d. All bids and the contract shall be subject to all the provisions, terms and conditions of said ordinance and of an Act of the General Assembly of Colorado entitled, "An Act to Provide for the Construction of Local Improvements in Cities of all Classes," etc., approved April 8, 1899, being Chapter 151 of the Session Laws of 1899.

e. Bidders must have paid their City License in order that their bids may be accepted.

In the case of State or municipal work, or other public work, the services of an attorney are commonly available, and compliance with all technical requirements of law should depend upon their advice. Labor laws in particular have of late years attained such importance that a lawyer's advice as to proper compliance with them is substantially necessary in all public work.

Provisions for reserving the right to reject all bids depends somewhat on the requirements of Statute Law. Where there is a requirement that the Contract shall be let to the lowest bidder, the form of statement must be different from that where, as is very common, the " right to reject any or all bids is reserved."

Forms in use appear as follows:

f. The right to reject any or all bids is reserved.

g. Commissioners reserve the right to reject any and all bids.

h. The Commission reserves the right to reject any or all proposals and to accept the proposal deemed best for the Commonwealth.

The statement as to where the forms of Proposal, etc., and as to where the plans may be seen is sometimes modified by statements that plans and forms may be seen also in some central place, perhaps in New York City, Chicago, Boston, or Washington. The office of Engineering News, or of the Engineering Record (now consolidated) in New York has been sometimes used for this purpose in accord with good practice. Sometimes an Engineer in New York City acts as Consulting Engineer and the Advertisement specifies his office as a place where plans may be seen.

A further provision sometimes made is that a deposit will be required in order to take plans, or plans and Specifications, from the office. This is a provision by no means uncommon, but in the case of many Contracts there is no occasion for it, so that this provision is not made a part of the sample Contract. Examples of such provisions are shown below:

i. Sets of plans may be taken from the office upon making a deposit of two dollars for each set taken; this deposit to be refunded upon return of plans.

j. A deposit of $10 (Ten Dollars) will be required for use of plans and specifications, which will be returned upon letting of contracts.

k. The specifications and blue-prints of Contract plans may be seen at the office of the Bureau of Filtration, and a limited edition can be obtained by bona-fide intending bidders on making a deposit varying from $10 to $25 for the specifications, and from $50 to $200 for the Contract plans, which amounts will be returned on return of the specifications and plans in good condition.

l. A payment of two dollars ($2) will be required for copies of the pamphlet containing the contract, specifications, etc.; the same to be returned in case the person taking the copy makes a bid for the work in the form contained in said pamphlet, or returns the pamphlet before the time of opening the bids.

These provisions apparently should occur in the Advertisement rather than in the Information for Bidders, but may, perhaps, properly occur in both.

CHAPTER XIV

INFORMATION FOR BIDDERS

THE term Information for Bidders seems somewhat preferable to Notice to Contractors, although the latter is also common. It matters little, however, which is used. One form in use reads Requirements for Bidding and Instructions to Bidders.

Under this head should be included all the information contained in the Advertisement, in some cases in greater detail or more extended form, together with other information necessary to enable a Contractor to make an intelligent and proper bid. It is not important to economize space or to make the information unduly concise. The Contractor or bidder who has become interested can be expected to read what is written, the cost of printing is small, and all such information or instruction as seems necessary or wise should be included.

The following is given as a sample or standard form containing many desirable features:

A. Information for Bidders

Board of Sewer Commissioners
of the City of Franktown, Mass.

Sealed proposals or bids for the construction of a sewer will be received by the Board of Sewer Commissioners of the City of Franktown, Mass., at their office in the City Hall, until two o'clock P.M., Thursday, March 10, 1917, at which time and place the bids will be publicly opened and read aloud.

The Proposal should be enclosed in a sealed envelope addressed to the Board of Sewer Commissioners of the City of Franktown, and indorsed "Proposal for Sewer Construction, to be opened March 10, 1917," and delivered to the Board or its clerk. The sealed envelope will be deposited in a locked box provided for that purpose. No bid shall be withdrawn for any purpose whatever after it has been deposited.

Plans may be seen, and form of Proposal, Specifications, Contract, and Bond may be obtained from Richard Roe, City Engineer of Franktown, Mass., at his office in the City Hall.

All bids shall be made on the blank form of Proposal annexed hereto, shall give the price for each item of the proposed work in ink and stated both in words and figures, and shall be signed and sworn to by the bidder with his full name, and with

his business address and place of residence; in case of a firm, the name and residence of each and every member of the firm shall be inserted; and in case the bid shall be submitted by or in behalf of a corporation, it shall be signed in the name of such corporation, by some duly authorized agent thereof who shall also subscribe his own name and the title of his office and, if practicable, the seal of the corporation shall be affixed.

Each bid must be accompanied by a certified check drawn upon a national bank or trust company established in the City of Boston or the City of New York, and certified by the cashier (or other suitable officer) of the bank upon which it is drawn, for four thousand five hundred dollars ($4,500), payable to the order of the Board of Sewer Commissioners of the City of Franktown, such check to be returned to the bidder unless forfeited under the condition herein stipulated. This check should not be enclosed in the sealed envelope containing the bid, but should be delivered to the Board or its secretary, who will give a proper voucher for the deposit. All such deposits, except that made by the bidder to whom the Contract shall be awarded, will be returned to the person or persons making the same within three days after the execution of the Contract and filing of the surety company's Bond, or in case of the rejection of all bids within three days after such rejection.

A Bond in the sum of thirty-five thousand dollars ($35,000) with a surety company satisfactory to the Board, as surety, will be required for the faithful performance of the Contract, and the Proposal shall state the name and address of the surety company or surety companies which will be offered as surety in case the contract is awarded to the bidder.

The party to whom the Contract is awarded will be required forthwith to execute in triplicate the Contract in the form on file in the office of the City Engineer as specified in the Proposal, and to provide the Bond of a surety company satisfactory to the Board, all within ten days (not including Sundays or holidays) from the date when a written notice of the award of the Contract is mailed to the bidder at the address given by him; in case of his failure to do so, the Board of Sewer Commissioners may at its option consider that the bidder has abandoned the Contract, in which case the certified check accompanying the Proposal shall become the property of the Board, and in consideration of the receipt by the Board of said certified check and the payment thereof, this Proposal and its acceptance shall become in other respects null and void, and the Board shall be at liberty to make other Contracts with other parties as it sees fit.

After signing of the Contract and the acceptance of the Bond by the Board, the certified check of the successful bidder shall be returned forthwith.

All bids will be compared on the basis of the City Engineer's estimate of the quantities of work to be done as follows:

Item 1. 1971 lineal feet of 7′ 6″ sewer
Item 2. 2417 lineal feet of 7′ 9″ sewer
Item 3. 1557 lineal feet of 8′ 0″ sewer
Item 4. 440 lineal feet of 8′ 6″ sewer

All to be of circular form and built of reinforced concrete, and prices to include excavation and backfilling.

Item 5. Manholes
Item 6. Catch basins
Item 7. Branch pipes for house connections.

It is expressly understood that the foregoing quantities are approximate only; that they are stated merely as a basis for the comparison of bids; that the Board

does not, expressly or by implication, agree that the actual amount of work will correspond with the said quantities; and that the amount of work may be more or less than the said quantities, and may be increased or diminished as may be deemed necessary by the City Engineer. An increase or decrease in the quantity for any item shall not be regarded as a sufficient ground for an increase or decrease in the prices, nor in the time allowed for the completion of the work, except as provided in the Contract.

The Board reserves the right to reject any or all bids or to accept any bid, should it deem it for the interests of the City so to do.

The work is to commence within ten days after the signing of the Contract, unless the Engineer shall, in a writing, approved in writing by a majority of the Board, authorize a further delay; and is to be continued with regularity, except during unsuitable weather, until its completion; and the entire work shall be completed on or before November 1, 1917, unless the City Engineer shall in a writing, approved in writing by a majority of the Board, designate some later date.

Before the award of the Contract, any bidder may be required to show to the satisfaction of the Board that he has the necessary facilities, ability, and financial resources to perform the work in a satisfactory manner and within the time stipulated, and that he has had experience in constructing works of the same or a similar nature, and to give references which will enable the Board to satisfy itself as to his qualifications for doing the work.

Proposals which are incomplete, unbalanced, conditional, or obscure, or which contain additions not called for, erasures, alterations or irregularities of any kind, or which do not comply with the Instructions to Bidders, may be rejected as informal at the option of the Board.

The Board will not receive the bids of persons in arrears to the City or who are in default, either as Contractors or sureties, or with whom a suit as to arrears or default is pending, and the decision of the Board on these matters shall be final.

The bidder shall provide the Engineer of the Board all possible facilities for examining the quality of the materials proposed to be furnished, and for obtaining such samples as he may require. The materials furnished under the Contract must equal in quality said samples and be satisfactory to the City Engineer.

Bidders must satisfy themselves, by personal examination of the location of the proposed work, and by such other means as they may prefer, as to the actual conditions and requirements of the work and the accuracy of the foregoing estimate of the City Engineer, and shall not, at any time after the submission of a bid, dispute or complain of such statement or estimate of the City Engineer, nor assert that there was any misunderstanding in regard to the nature or amount of work to be done.

The bidder is expected to make himself familiar with the laws of the State and the ordinances of the municipality which refer to the employment of labor, or the letting or carrying out of Contract work, and to observe and comply therewith, whether or not special attention is called to them herein or in the Proposal, Contract, or Specifications which accompany this Information for Bidders.

The bidder shall not have assistance or advice from employees of the City or of any department of public works in preparing his bids. Each bidder is required to state in his bid the names of all persons interested with him, and if no other person be so interested, he shall distinctly state the fact; also that it is made without any connection with any other person making any bid for the above work; also that the bid is in all respects fair, and made without collusion or fraud; and

that no person acting for, or employed by the City of Franktown is directly or indirectly interested therein, or in the supplies or work to which it relates, or in any portion of the profits thereof. The Proposal must be sworn to before some official authorized to administer oaths.

Bidders are invited to be present at the opening of bids.

JOHN DOE,
HIRAM WEEKS,
ARTHUR SMITH,
Board of Sewer Commissioners.

RICHARD ROE, City Engineer.

In the above sample form many of the desirable features found in forms in actual use have been incorporated, and to these have been added others which seemed in some way worth while. Other wordings may seem preferable to Engineers preparing forms for their own work, and extracts from various pamphlets are added here for assistance and suggestions.

The following explains itself:

B. Sealed bids or proposals, addressed to the Metropolitan Water Board, and indorsed "Proposal for building Section 8 of the Nashua Aqueduct," will be received at the office of the Board, 3 Mt. Vernon Street, until 12 o'clock, noon, of Thursday, the fourth day of June, 1896, and at that time and place will be publicly opened and read.

The only important point of difference is that the sample form says "read aloud."

A form prescribed by statute for use in one of the large cities reads:

C. Bids must be made in duplicate, the duplicate, without check, to be deposited with the City Auditor previous to the time named for opening bids.

In case of discrepancy the copy in the City Auditor's office is considered the official Proposal. There is no provision that the bids in the Auditor's office shall be publicly opened, and the opportunity for collusion or irregularity to occur is apparently increased rather than decreased. Any bidder might properly object to filing his duplicate bid in the City Auditor's office unless this was done a few minutes before the time set for opening bids.

Some forms provide that:

D. In the presence of the person offering the bid it will be deposited in a sealed box provided for that purpose.

This does not refer to the deposit with the Auditor. The provision for placing in a locked box is not yet altogether common, and it is not always provided that bids may not be withdrawn after being deposited. Withdrawal up to the time of opening the bids might seem reasonable, but when the bidders are not well known, it is well to guard against the possible

unauthorized withdrawal of a bid. Withdrawal from a sealed box, of course, is out of the question, although withdrawal might be allowed after opening the box and before the opening of any bid, if it should seem desirable to do so.

There is an advantage sometimes in having plans and forms available in large cities, as illustrated below:

E. Plans may be seen, and specifications, form of proposal, bond and contract obtained at the office of the Engineer of the Board of Water Commissioners, and at the office of Blank & Blank, Consulting Engineers, ... Park Avenue, New York City.

Alternative forms used are as follows:

F. All bids shall be made on the blank form of proposal annexed hereto, shall give the price for each item of the proposed work, both in writing and in figures.

G. All proposals must be made upon the blank form herein contained; must give the prices for each and all items of the work proposed, both in words and figures in ink; and be signed by the bidder with his business address and place of residence.

H. All bids must be made upon the blank form hereto annexed. Bidders will state prices for each separate item of the work, by which the bids will be compared. These prices are to cover all the expenses incidental to the completion of the work in full conformity with the specifications. The prices bid must be stated both in words and in figures. All bids which do not contain prices for all the items which are called for in the forms for bids, or which are otherwise not in conformity with this notice, will be rejected.

The use of the blank forms provided has been discussed in connection with the Advertisement; it secures uniformity and makes it certain that the bidder undertakes to sign the Contract in the required form, and to forfeit his certified check if he fails to do so. The use of words and figures in the bid serves to prevent any mistake in reading the prices bid, and is a requirement properly made in Information for Bidders, rather than in the Advertisement.

In cases where full printed forms, bound in a pamphlet, are not used, the phraseology should be:

I. All bids shall be made on the blank form of Proposal provided by the Board for that purpose.

The statement that each bid must be accompanied by a certified check repeats the statement made in the Advertisement, which is discussed in connection with it. The details as to returning or forfeiting the checks belong to Information for Bidders, and need not be elaborated in the Advertisement.

Various readings are used:

J. All such deposits, except that of the successful bidder, will be returned on demand to the persons making the same, within three days after the contract is awarded.

K. Within three days after the decision as to who shall receive the contract.

L. After the execution of the contract and the acceptance of the bond by the Commissioners of Sewerage, the check accompanying the proposal of the successful bidder shall be returned.

The Contract is not fully awarded until the formal Contract is executed and the surety company's Bond filed. The second bidder and the other higher bidders should not be discharged before the transaction is completed by the execution of the Contract and filing of the Bond, or by the rejection of all bids.

Other readings taken from forms for Information for Bidders are as follows:

M. A bond in the sum of ..... dollars with a surety company satisfactory to the Company, will be required for the faithful performance of the contract.

N. A bond in the sum of ..... dollars will be required to be executed by the party to whom the contract is awarded with an incorporated surety company duly authorized to execute the same.

Satisfactory security is further made a part of the above provision.

O. A bond in the amount of ..... dollars will be required for the faithful performance of the contract. The name and address of each surety offered must be stated in the bid or proposal. The surety must be satisfactory to the Board.

P. An approved surety company is required.

Q. A bond will be required for the faithful performance of the contract in such sum as shall be fixed by the Commission after the bids are opened, said sum to be not less than one-fourth nor more than one-half of the amount of the contract.

This appears to be an undesirable provision; the amount of the Bond should be a definite sum fixed before the letting. Otherwise there is no assurance that all bidders will receive equal treatment if awarded the Contract. The same criticism applies to the following:

R. A bond will be required for the faithful performance of the contract in a sum not less than ten and not exceeding twenty-five per cent of the amount of the contract, with two or more sureties (who must be residents of Massachusetts) satisfactory to said Board, or an approved surety company.

In connection with the furnishing of the Bond, comes the provision that, with the bid, shall go a statement with relation to the surety offered, and the following are additional forms:

S. The bidder is required to state below the names and addresses of the sureties offered as security on the bonds to be given for the faithful performance of the contract, and the amount in which each will qualify.

T. The bidder is requested to name the sureties or the surety company who will sign his bond in case the contract is awarded him.

U. The bidder shall here give the name and address of the surety company that will, if acceptable, sign his bond.

V. The bidder is required to name a surety company or surety companies, one of which will sign his bond in case the contract is awarded to him.

The provision for forfeiture of the certified check differs materially in different readings, not only in form, but also in legal effect. The provision for execution of the Contract in triplicate is a detail; one copy commonly goes to the City, one to the Contractor, one to the City Auditor as a basis for his auditing the monthly and final estimates.

It should be understood that the Proposal is an offer which when accepted becomes a legal Contract, and further attention to this feature is given in connection with the Proposal, which should contain a definite agreement as to the forfeiture of the certified check. It is proper that a statement with relation to it should be a part of the Information for Bidders.

Alternatives to the provision contained in the sample form *A* are as follows:

W. The contract must be signed and the bond furnished within six days (Sunday excepted) after the date of the notification by the commission of the acceptance of the proposal and readiness of the contract for signature; and in case of the failure of the bidder, after such notification, to sign the contract and to furnish the bond within the said time, the proposal and acceptance shall be null and void, the Commission shall be at liberty to make other contracts with other parties for the work as it sees fit, and the certified check accompanying the proposal shall become the property of the Commonwealth, and shall be retained by it in consideration and full compensation for all loss, damage, and delay caused to the Commonwealth by the failure of the bidder to sign the contract and execute the bond within the time aforesaid.

X. Within ten days (not including Sunday) from the date of the mailing of a notice from the Commissioners of Sewerage to the bidder, according to the address given by him, that the contract is ready for signature, the party to whom the contract is awarded will be required to present forthwith to the Commission the name of the surety company to be offered, to execute the contract and furnish the

bond, duly executed, with satisfactory surety and, in case of his failure or neglect so to do, the Commissioners of Sewerage may at their option determine that the bidder has abandoned the contract, and if the Commissioners of Sewerage determine that the bidder has abandoned the contract, then the certified check deposited with the Commissioners and the amount therein mentioned shall be retained by the Commissioners and shall become their absolute property to reimburse them for expenses, advertising and delays; and it is agreed by the bidder that in case of his default, said check and the amount thereof may be collected and retained by said Commissioners as liquidated damages in full settlement of all claims against him arising under said bid. After the execution of the contract and the acceptance of the bond by the Commissioners of Sewerage, the check accompanying the proposal of the successful bidder shall be returned.

The clause introductory to the statement of the quantities of various classes of work may take, if preferred, either of the following forms:

Y. The Engineer's estimate of the work to be done by which the bids will be tested is as follows:

Z. The excavation, the masonry and other parts of the work have been divided into classes and items in order to enable the bidder to bid for the different portions of the work in accordance with his estimate of their costs, so that in the event of an increase or decrease in the quantities of any particular class of work the actual quantities executed may be paid for at the price bid for that particular class of work.

The provision that the quantities stated are approximate only has various forms as shown below:

a. As the above mentioned quantities, though stated with as much accuracy as is practicable in advance, are approximate only, bidders are required to submit their estimates upon the following express conditions, which shall apply to and become part of every bid received, viz.:

b. These quantities are approximate only, being given as a basis for the comparison of bids, and the Commissioners reserve the right to increase or decrease the amount of any class or portion of the work as may be deemed necessary by the Engineer; and to reject any or all bids or to accept any bid, should the Board deem it to be for the interests of the City so to do.

c. The Board reserves the right to increase or diminish the amount of the different classes of work as may be deemed necessary by its Engineer.

d. On account of the character of the work to be done, quantities given above cannot be estimated with accuracy; therefore, all bidders are required to submit their bids upon the following expressed conditions, viz.: that they have satisfied themselves by personal examination of the location of the proposed work; and by such other means as they may elect as to the degree of accuracy of the foregoing estimates; and that they will not at any time after submission of bids dispute said estimate nor claim any misunderstanding as to the nature or amount of the work

to be done, nor attempt to hold the Commonwealth or any person responsible for the same.

e. These quantities are based upon the construction of the sewer in open cut, are approximate only, being given as a basis for the comparison of bids, and the Commissioners of Sewerage do not expressly or by implication agree that the actual amount of work will correspond therewith, but reserve the right to increase or decrease the amount of any class or portion of the work as may be deemed necessary by the Engineer.

It is sometimes provided that:

f. Quantities shall not be increased or decreased by more than 25 per cent (or other percentage).

A wording which is preferable is:

g. Quantities may be increased or decreased provided the net increase or decrease is not more than 25 per cent.

The difference between the two is, in some cases, vital. Such a provision, if used, should also occur in the Contract, and in the identical wording. The former reading is a better protection against unbalanced bids and favoritism; the latter, a more suitable protection against unforeseen contingencies requiring changes or modifications.

Sometimes a statute or a municipal ordinance requires letting to the lowest bidder, or the lowest responsible bidder. In many cases that is not required and the following alternative forms are in use:

h. The right is reserved to reject any and all proposals, or to accept the proposal deemed best for the Commonwealth.

i. The right is reserved to reject any and all bids, and to waive any defect or informality, at the discretion of the Board.

j. The Commissioners of Sewerage reserve the right to select the bid or proposal, the acceptance of which will, in their judgment, best secure the efficient performance of the work, or to reject any or all bids.

A simple form as to the time of beginning and finishing the work is as follows:

k. The work is to be commenced within ten days after the signing of the contract, unless the Engineer shall authorize or direct a further delay, and is to be continued with regularity until its completion, on or before .....

Opinions will readily differ as to the amount of red tape desirable in connection with any delay.

Another form reads:

l. The Contractor shall begin "active" preparations for the work.

It is very important that competent men or corporations be secured to do the work, especially in work of this kind. Good-natured incompetence is a hopeless case to deal with, and in cases of important construction great care should be exercised in order to secure experienced Contractors. While it may not be pertinent to this discussion, Engineers further realize that it is a misfortune to have the Contract awarded at a price insufficient to properly do the work. The quality of the work usually suffers some in consequence, even though efficient inspectors are employed.

As to the bidder's ability and responsibility, note the following forms:

m. The bidder will be required to state what work of a similar character to that included in the proposed contract he has done and give references which will enable the Board to judge of his responsibility, experience, skill and business standing.

n. Each bidder is required to make a statement indicating what work of a similar character he has done, and to give references which will enable the Board to judge of his experience, skill and business standing.

o. It is the purpose of the Commission not to award this contract to any bidder who does not furnish evidence satisfactory to the Commission that he has ability and experience in this class of work, and that he has sufficient capital and plant to enable him to prosecute the same successfully, and to complete it within the time named in the contract.

p. Each bidder will be required to give to the Board satisfactory assurance of his competency, experience and responsibility.

Forms vary with relation to irregular, unbalanced or informal bids; some say "shall" not be considered; some say "may" not be considered; some give the Board the right to waive irregularities. It probably is wise in Contracts made by large municipalities, to use the word "shall" rather than "may."

Whether a bid is unbalanced may be difficult to determine in some cases, but it often happens that a bid upon some item is so high or so low as to be beyond all reason.

The following readings are used:

q. No bid should be received that does not comply with instructions to bidders.

r. If a proposal is not uniform and is irregular, it cannot properly be considered.

s. If the price for any item appears to be abnormally high or low, it may cause the rejection of the entire bid.

Unbalanced bids or alternative bids are among the means by which favoritism and graft are even now practiced in some of our large cities.

After all else is done to secure honest letting, favoritism may still be practiced by slack enforcement with a favorite and rigid enforcement against all others. This may be carried far enough so that a knowledge of what is to come may even discourage bidding by honest bidders.

To the information shown above, it is necessary to add a statement with relation to certain statutory requirements in States where these exist, as indicated by an extract from a form used in the State of New York, which is as follows:

t. The attention of bidders is especially called to the provisions of Chapter 724 of the Laws of 1905, and acts amendatory thereof, as to the letting of contracts and payment for work; to "The Labor Law"; to the laws and regulations relating to mines, quarries and tunnels promulgated by the Commissioners of Labor of the State of New York, and to Sections 362 and 363, Chapter 410, Laws of 1882; to the "Public Health Law"; and Section 482, Chapter 466, Laws of 1901, as to the health laws.

The following form has been used in Massachusetts:

u. In the employment of mechanics and laborers, on the work to be done under this contract, preference shall be given to citizens of the Commonwealth, and, if they cannot be had in sufficient numbers, then to citizens of the United States (Chapter 311 of the Acts of 1904). No employee shall be required to lodge, board or trade at a particular place or with a particular person. (Revised Laws, chapter 106, section 12). No laborer, workman or mechanic in the employ of the contractor, sub-contractor or other person doing or contracting to do the whole or any part of the work contemplated or included in this contract shall be required to work more than eight hours in any one calendar day. (Chapter 517 of the Acts of 1906).

It is not uncommon to incorporate in the Information for Bidders extracts from statutes or ordinances affecting the employment of labor, and this is sometimes done by giving references to such statutes or ordinances, sometimes by quoting them in full.

Two such provisions to which attention has been called in actual printed forms are these:

v. Bidders are hereby notified that Section 62 of chapter 106 of the Revised Laws of the Commonwealth requires the weekly payment of employees by all contractors for public works.

w. The Contractor, if a foreign corporation, shall comply with the provisions of section ..... etc. relating to the appointment of the Commissioner of Corporations as its attorney, upon whom all lawful processes or proceedings may be served, and shall, as required by said sections, file with the Commissioner of Corporations duly authenticated copies of the power of attorney and of its charter or certificate of incorporation.

In this connection, it seems important that, somewhere in the Contract documents, suitable provision shall be made for notice to the Contractor. As is stated in the later chapter on Uniform Contract Form, it is inappropriate that a notice of suspension or annulment of work should be served upon the foreman of the Contractor, unless the latter has formally authorized it. It seems desirable that the Contract proper should provide for such notice, and the Contractor is very commonly required to specify an address to which all notices by mail shall be sent.

In addition to what may be considered the general features of Information for Bidders, there are often matters peculiar to the special job, and the following extracts illustrate this and may be valuable as suggestions:

x. Where the sewer is to be constructed across the property of a steam railroad company, the method of excavation shall be in accordance with the requirements of said railroad company.

y. The attention of bidders is particularly called to the fact that the amount of tunnel excavation and of packing over the roof will depend very much upon the accuracy with which the tunnel is excavated, and they should therefore depend wholly upon their own estimate for the amount of such work.

The item bid upon in this work was "4775 lineal feet of rock or earth excavation and refilling in tunnel for 9 feet diameter sewer." In the Contract a more extended statement is made of various matters included in this item.

z. The location and results of borings made by means of a hand auger or sand bucket on the line of the sewer are shown on the plans. These borings were made substantially at the places shown on the plans, were carried to the depths there indicated, and were made with reasonable care, and the materials are supposed to be approximately correct. The samples obtained by boring, and to be seen at the office of the Commission, are supposed to represent approximately the character of material to be encountered in the excavations.

aa. The Contractor, in making his bid, should take into account the probability that the character of the material to be excavated and of that through which the piles are to be driven will differ from indications on the plans.

bb. Special attention is called to the uncertainty of the length of the piles required.

It should be understood that where information as to borings, or the like, is given, it must be shown complete. If the Contractor has been misled by the suppression or withholding of information of this sort the courts will probably grant him relief, as they have done in some cases, notwithstanding any waiver of responsibility contained in the Contract or the accompanying papers. The chapter on Specifications further discusses this matter.

As a further illustration that the Information for Bidders should cover matters peculiar to the work in hand, there are many interesting features shown in the following form used in connection with the construction of the Hill View reservoir for the Water Supply of the City of New York, which it has seemed worth while to print in full without further comment:

cc. **INFORMATION FOR BIDDERS**

This contract is for the construction of Hill View reservoir in the Hill View division of the Southern Aqueduct department, situated east of the Hudson river in the city of Yonkers, Westchester county, New York, about one-half mile north of the New York City line, and between the Harlem and Putnam divisions of the New York Central and Hudson River Railroad. The reservoir site extends from Central Park avenue to Kimball avenue, and from the Empire City race-track nearly to McLean avenue.

The reservoir is to be built of earth embankments lined with concrete, rubble paving and riprap, and will be roughly rectangular in shape, about 3000 feet long and 1500 feet wide, divided into two basins by a wall which will contain a by-pass aqueduct, connecting with the uptake chamber of the Yonkers siphon at one end, and with the downtake chamber of the Van Cortlandt siphon at the other. This contract also includes the construction of the uptake shaft and a portion of the tunnel of the Yonkers siphon and the downtake shaft and a portion of the tunnel of the Van Cortlandt siphon. Other appurtenances include a portion of a blow-off conduit and various roadways, paths and a fence around the reservoir.

The site of the reservoir is about 1½ miles west of Mt. Vernon station on the Harlem division, about one mile east of Lincoln station on the Putnam division, and about 3½ miles southeast of Yonkers station on the Hudson River division of the New York Central and Hudson River Railroad. There are electric railways in McLean, Central Park and Yonkers avenues, connecting Yonkers, Mt. Vernon and New York City with the reservoir site. The head of tide-water navigation on the East Chester river at Mt. Vernon is about 4 miles from the site of the work, and the Hudson river at Yonkers is about 4 miles distant by existing roads.

The principal geographic features adjacent to the site of this work are shown on the locality map, which is Sheet 2 of the contract drawings. Complete topography of this region may be found on the Harlem quadrangle of the United States Geological Survey. All the work included in this contract is described in the accompanying specifications and shown on a set of contract drawings.

Sealed bids or proposals for performing the work described herein will be received by the Board of Water Supply, in the office of the Board, Room 910, ninth floor, 299 Broadway, New York, until Wednesday, December 8, 1909, at 11 A.M., at which place and time they will be publicly opened by the Board and read; the award of the contract, if awarded, will be made by the Board as soon thereafter as practicable.

All bids must be made upon the blank form of proposal attached hereto and should give the price for each item of the work proposed, both in writing and in figures, and must be signed and sworn to by the bidder, in accordance with the directions in the form of bid. Each bid must be enclosed in the printed envelope provided for the purpose by the Board, and sealed.

No bid will be received and deposited unless accompanied by a certified check upon a National or State bank, drawn and made payable to the order of the Comptroller of The City of New York, for one hundred thousand dollars ($100,000) for the proper execution of the contract. Such check must not be enclosed in the sealed envelope containing the bid, but shall be delivered to the Board, or its Secretary, who will give a proper voucher for the deposit. All such deposits, except that made by the bidder to whom the contract shall be awarded, will be returned to the person or persons making the same within 3 days after the decision as to who shall receive the contract.

If the bidder to whom the contract shall have been awarded shall refuse or neglect, within 10 days after due notice that the contract has been awarded to him, to execute the same and furnish the security required, the amount of the deposit made by him shall be forfeited to, and be retained by, the said City as liquidated damages for such neglect or refusal, and shall be paid into the general fund of said City, pursuant to the provisions of Section 30, of Chapter 724, of the Laws of 1905, but if the said bidder to whom the contract is awarded shall execute the contract and furnish the said security within the time aforesaid, the amount of his deposit will be returned to him.

Two or more bonds, the aggregate amount of which shall be seven hundred thousand dollars ($700,000), will be required for the faithful performance of the contract. Each bond must be signed by the Contractor and the sureties. The name and address of each surety offered must be stated in the bid or proposal, together with the amount in which each surety will qualify. The sureties and the amount in which each will qualify must be satisfactory to the Board.

The bidder whose bid shall be accepted will be required to attend at the office of the Board in person, or if a corporation, by a duly authorized representative, with the sureties offered by him, and to execute the contract and bonds within 10 days from the date of the service of a written notice that the contract has been awarded to him, delivered to him in person, or mailed to the address given in the bid; in case of failure or neglect so to do, he may, at the option of the Board, be deemed to have abandoned the contract and as in default to The City under the provisions of Section 30, of Chapter 724, Laws of 1905.

It is the purpose of the Board of Water Supply to build the works under its charge in the shortest time consistent with good construction. To this end contractors will be required to use improved methods and appliances for doing the various parts of the work. Complete and well-designed construction plants and effective organization will be insisted upon. Attention is called to the magnitude of the work and to the need for machinery and other equipment of unusually large capacity.

The attention of bidders is especially directed to the contract requirements as to the time of beginning work, the rate of progress and the date for completion of the several parts and the whole of the work, as required by Article VI of the contract. In all stages of the work such rates of progress will be required as will give promise of the completion of all parts of the work within the prescribed time.

The portions of the Yonkers siphon and Van Cortlandt siphon included in this contract, together with the uptake and downtake chambers and the by-pass aqueduct, shall be so far completed as to be ready to convey water within 45 months after the service of notice upon the Contractor to begin work.

Certain provisions of the specifications involve an unusual division of the work. For example, the work of handling water in the shafts and tunnels, which

it is impracticable to exclude during construction, will be paid for under separate items and is not included in the prices to be bid for tunnel excavation and masonry. Furthermore, in the case of grouting, owing to the uncertainty as to the quantity, distribution, and conditions of placing the grout, to the special character of the machinery required, and to the great importance of this work, the machinery and materials and the various necessary operations will be paid for under separate items.

The rigid requirements of the specifications relating to the selection and consolidation of materials for refills and embankments, to the care of the reservoir bottom, to the mixing and placing of concrete both in the tunnels and reservoir, to the grouting in the tunnels and to other operations which require special care to assure safe, efficient and water-tight structures, are called to the attention of intending bidders, particularly those who have not had personal experience in waterworks construction, and who, consequently, are liable to make insufficient allowance for the character of work necessary.

The sanitary regulations and the provisions relating thereto are particularly called to the attention of intending bidders.

For the convenience of intending bidders, the lines and limits of the proposed work have been marked upon the ground with sufficient clearness to enable a person to find them readily. Conspicuous signs have been placed at the shaft sites.

The country in the vicinity of the proposed reservoir has been explored for sand and stone suitable for reservoir construction, and it is believed that such materials can be found within a reasonable distance of the reservoir site. No guaranty is given, however, that such material will be accepted for construction purposes.

Several test pits have been excavated on the reservoir site, most of which have been carried down to the elevation of the bottom of the reservoir masonry. These test pits have been left open and may be inspected. The subsurface investigations have been made with reasonable care, substantially at the places indicated on the drawings, and carried to the depths thereon recorded. The difficulty encountered in excavating the test pits indicates that blasting may be required in order to excavate the materials by machinery. Each bidder must form his own opinion of the character of the material to be excavated from an inspection of the ground and by his own interpretation of the test pits made by The City and from any other investigation which he may desire to make.

Core borings have been made on or near the lines of the Yonkers siphon and Van Cortlandt siphon. Records of these borings may be seen at the office of the Engineer, at White Plains, New York.

The public water supply of the City of Yonkers supplies the neighborhood of Hill View reservoir, and water mains are now laid in McLean and Kimball avenues. The work must be prosecuted in such a manner that these water mains are not interfered with nor the supply interrupted at any time.

The Bronx Valley relief sewer, a tunnel about 6½ feet in diameter now under construction, crosses the line of the Van Cortlandt siphon within the limits of this contract, at the elevation of about + 30. It will be necessary to conduct the work on the Van Cortlandt siphon in this vicinity so as to avoid any damage to the sewer.

Statement of Quantities. — The following is a statement, based upon the estimate of the Engineer, of the quantities of the various classes of work, and of the nature and extent, as near as practicable, of the work required; the several bids will be computed, tested and canvassed by the quantities and kinds of work mentioned in this statement, viz.:

Tunnel Items

Item 1.	Shafts in earth	115 linear feet
Item 2.	Rock excavation in shafts	4,700 cubic yards
Item 3.	Excavation in tunnels	39,500 cubic yards
Item 4.	Additional trimming in shafts and tunnels	100 square yards
Item 5.	Furnishing structural steel roof support	166,000 pounds
Item 6.	Erecting structural steel roof support	166,000 pounds
Item 7.	Temporary timbering in tunnels	20 M ft. B. M.
Item 8.	Pumping from shafts and tunnels during construction	40,000 million foot gallons
Item 9.	Drainage channels for shafts and tunnels	3,430 linear feet of all shafts and tunnels
Item 10.	Forms for lining shafts	435 linear ft. of shaft
Item 11.	Forms for lining tunnels	2,970 linear feet of tunnel
Item 12.	Concrete masonry in shafts	2,400 cubic yards
Item 13.	Concrete masonry in tunnels	14,400 cubic yards
Item 14.	Excess concrete masonry in shafts and tunnels	700 cubic yards
Item 15.	Brick masonry in shafts and tunnels	100 cubic yards
Item 16.	Dry packing in tunnels	850 cubic yards
Item 17.	Drilling 1½-inch or smaller holes in rock or masonry	400 linear feet
Item 18.	Drilling 1¾-inch to 2½-inch holes in rock or masonry	400 linear feet
Item 19.	Steel pipe for grouting, etc.	6,000 linear feet
Item 20.	Miscellaneous plant and equipment for grouting	lump sum
Item 21.	High pressure air-compressors for grouting	2 compressors
Item 22.	Tank grouting machines	4 machines
Item 23.	Grouting pads	10 pads
Item 24.	Making connections of tank grouting machines to grout pipes	900 connections
Item 25.	Setting grouting pads	300 settings
Item 26.	Sand for grout	350 tons
Item 27.	Mixing and placing grout	500 cubic yards

Reservoir and General Items

Item 28.	Clearing and grubbing	163 acres
Item 29.	Removal of top soil	250,000 cubic yards
Item 30.	Trench excavation	10,000 cubic yards
Item 31.	All ordered excavation in open cut, except that specified under Items 29 and 30	2,900,000 cubic yards
Item 32.	Special impervious refilling and embanking	1,250,000 cubic yards
Item 33.	All ordered refilling and embanking, except that specified under Items 32 and 34	1,500,000 cubic yards
Item 34.	Surface dressing and grassing	90,000 cubic yards

Item 35.	Portland cement	215,000 barrels
Item 36.	Sulphate of alumina for waterproofing concrete, mortar or grout	35,000 pounds
Item 37.	Concrete in reservoir lining	60,000 cubic yards
Item 38.	Concrete in walls, chambers, etc.	75,000 cubic yards
Item 39.	Reinforced concrete	500 cubic yards
Item 40.	Reinforced concrete ladders	1,000 linear feet
Item 41.	Brick masonry not in tunnel	100 cubic yards
Item 42.	Rubble masonry and paving in mortar	1,000 cubic yards
Item 43.	Dry rubble masonry and paving	20,000 cubic yards
Item 44.	Riprap	27,000 cubic yards
Item 45.	Crushed stone and gravel	7,000 cubic yards
Item 46.	Placing and rolling macadam surfacing	40,000 square yards
Item 47.	Telford base	2,000 cubic yards
Item 48.	Cast-iron pipe and special pipe castings	70 tons
Item 49.	Steel for reinforcing concrete	80,000 pounds
Item 50.	Miscellaneous cast iron, wrought iron and steel	900,000 pounds
Item 51.	Bronze	35,000 pounds
Item 52.	Caring for and setting metal-work furnished by The City	600,000 pounds
Item 53.	Plug-valves	15 valves
Item 54.	Wire fence	15,000 linear feet
Item 55.	Galvanizing	50,000 pounds
Item 56.	Vitrified pipe 10 inches or less in diameter	1,500 linear feet
Item 57.	Vitrified pipe larger than 10 inches and not exceeding 18 inches in diameter	5,000 linear feet
Item 58.	Timber and lumber not in tunnel	100 M ft. B. M.
Item 59.	Stop planks	25 M ft. B. M.
Item 60.	Locker houses	2 houses
Item 61.	Moving Hammond house	lump sum
Item 62.	Sanitary service	76 months
Item 63.	Cleaning up	lump sum

These quantities are approximate only, being given as a basis for the uniform comparison of bids, and the Board does not expressly or by implication agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the quantity of any class or portion of the work, as may be deemed necessary by the Engineer.

Bidders are required to submit their estimates upon the following express conditions, which shall apply to, and become part of every bid received, viz.:

Bidders must satisfy themselves, by personal examination of the location of the proposed work, and by such other means as they may prefer, as to the actual conditions and requirements of the work and the accuracy of the foregoing estimate of the Engineer, and shall not, at any time after the submission of a bid, dispute or complain of such statement or estimate of the Engineer, nor assert that there was any misunderstanding in regard to the nature or amount of work to be done.

Attention is called to the uncertainty in the quantities of many of the kinds of work involved in the construction of the shafts and tunnels, where such quantities depend upon the tightness, solidity, breakage and other qualities of the rock which

cannot be determined in advance. The quantities of excavation, excess concrete masonry, steel roof support and timbering, pumping and grouting are especially subject to such uncertainty. Generally the intention has been to estimate all quantities liberally.

An increase or decrease in the quantity for any item shall not be regarded as a sufficient ground for an increase or decrease in the prices, nor in the time allowed for the completion of the work, except as provided in the contract.

The excavation, masonry and other parts of the work have been divided into classes and items in order to enable the bidder to bid for the different portions of the work in accordance with his estimate of their costs, so that in the event of an increase or decrease in the quantities of any particular class of work, the actual quantities executed may be paid for at the price bid for that particular class of work.

The attention of bidders is especially called to the provisions of Chapter 724 of the Laws of 1905, and acts amendatory thereof, as to the letting of contracts and payment for work; to "The Labor Law"; to the laws and regulations relating to mines, quarries and tunnels promulgated by the Commissioner of Labor of the State of New York, and to Sections 362 and 363, Chapter 410, Laws of 1882; to the "Public Health Law"; and Section 482, Chapter 466, Laws of 1901, as to the health laws.

No bid will be allowed to be withdrawn, for any reason whatever, after it has been deposited with the Board of Water Supply. No bid will be accepted from, nor contract awarded to, any person who is in arrears to the Corporation of The City of New York, upon debt or contract; nor who is in default, as surety or otherwise, upon any obligation to the Corporation of The City of New York.

Before the award of the contract, any bidder may be required to show that he has the necessary facilities, experience, ability, and financial resources to perform the work in a satisfactory manner and within the time stipulated, and that he has had experience in constructing works of the same or a similar nature.

The Board reserves the right to select the bid or proposal, the acceptance of which will, in its judgment, best secure the efficient performance of the work, or to reject any or all bids.

Proposals which are incomplete, conditional or obscure, or which contain additions not called for, erasures, alterations, or irregularities of any kind may be rejected as informal. Failure to name sureties will be sufficient cause for the rejection of a proposal.

John A. Bensel, President
Charles N. Chadwick
Charles A. Shaw
} Commissioners of the Board of Water Supply

Office of the Board of Water Supply,
299 Broadway, New York.
Dated, New York, May 15, 1909.

CHAPTER XV

PROPOSAL

The status, from the legal standpoint, of the Proposal should be clearly understood. The Proposal is an offer, and when this offer is accepted, the Proposal and acceptance together constitute a valid Contract to do the work, and also to execute the formal Contract and to give Bond. There are two parties; there is subject matter; there is consideration in that the bidder, on the one hand, and the City, the Company, or the Owner on the other, are each bound to the other; both parties have agreed to the same thing. What the bidder, the Contractor, has agreed to, primarily, is to do the work at the prices named, to sign the formal Contract, and to give Bond. The offer or Proposal resulting in the agreement as to each of these should be specific and not implied. If the Proposal suitably refers to the formal Contract and thus includes it, the Proposal and its acceptance constitute a Contract as valid and binding as the formal Contract when signed. There remains, however, the giving of the Bond, which in some cases is required by law and which in most cases is necessary to protect the City, the Company, or the Owner, in case the Contractor fails to fully carry out his Contract.

If the Contractor will not sign the formal Contract and give Bond as he agreed to do, the sooner he is rid of the better. Nevertheless, in this case, he is liable for damages for breach of Contract, and in the absence of anything otherwise to fix these, the damages are measured by the loss sustained. This will be the difference between the bid accepted and the next higher bid, together with loss from delay, if any. In case of re-letting, the loss will include the difference between the former bid and the bid accepted at the re-letting, the loss from delay, and the expense involved in the re-letting.

It is customary, however, to include in the Proposal what may be called a secondary or supplementary agreement by which the certified check shall be surrendered if the Contractor fails to sign the formal Contract and give Bond. It is not certain that the surrender of the certified check will relieve the Contractor from the payment of damages in excess of the

amount of the certified check, if they can be proved, unless the agreement in some way limits the Contractor's liability to the amount of the check. In some cases it is provided that the certified check shall be retained as liquidated damages; in others, the words liquidated damages are not used. It seems desirable, on the whole, that the Contractor should not be held liable beyond the amount of the certified check. The provision contained in the sample form which follows, provides that the receipt and payment of the certified check shall be the consideration for making the Proposal and acceptance in other respects null and void, so that there can then be no valid claim for damages for breach of Contract. It is quite possible that a court would sustain the acceptance and payment of the check as a valid consideration for the Contractor's release from his agreement without this specific clause; it is probable also that a provision for liquidated damages would be sustained, but the question of its forming in reality a penalty might require the presentation of evidence on this point.

The form of bid or Proposal, as a sample, may be as follows:

A. **Bid or Proposal**

To the Board of Sewer Commissioners of the City of Franktown, Mass.

For the Construction of Sewers, the bids for which are to be opened March 10, 1917.

Made this ..... day of ..... 1917, by[1] .....

.....

The party named above as bidder, declares that the only person or persons interested in this bid or Proposal as principal or principals is or are named above, and that no other person than hereinabove named has any interest in this Proposal or in the Contract proposed to be taken; that this bid or Proposal is made without any connection with any other person or persons making a bid or Proposal for the same purpose; that the bid or Proposal is in all respects fair and in good faith and without collusion or fraud; and that no City officer or clerk, elected or appointed, nor any person in the employ of the Board of Sewer Commissioners, is, shall be or become directly or indirectly interested as principal or surety in this Proposal or in the Contract proposed to be made, or in the supplies, work, or business to which it relates, or in any portion of the profits thereof.

The bidder further declares that he is not in arrears to the Board, or to the City of Franktown upon debt or Contract, that he is not in default either as Contractor or surety or otherwise upon any obligation to said Board or to said City, and that there is no suit or claim pending as to such arrears or default.

He further declares that he has examined the site of the work, and informed

[1] The bidder's name and address must be inserted here, and in case of a firm, the name and address of each and every member of the firm must be inserted. In case of a bid by or in behalf of any corporation, the complete legal name and address of such corporation must be written here, together with the name and address of the officer or agent of the corporation upon whom notice may be served.

himself fully in regard to all conditions pertaining to the place where the work is to be done; that he has examined the form of Contract and of Bond on file in the office of the City Engineer, the Specifications, and the drawings therein referred to, and has read the Information for Bidders referring to the work, and has satisfied himself as to all matters relating to the work to be performed.

The bidder proposes and agrees, if this Proposal shall be accepted, that he will furnish and do everything required by the Contract to which this refers, for the following stated prices:

(Here follow the items for bids, and against each is to be placed the bid in ink and stated both in words and in figures.)

For all extra work done by written order of the City Engineer not similar in character to the items above specified, and for which no price is set in the said written order, its actual and reasonable direct cost to the Contractor, as determined by the City Engineer, plus 15 per cent of said cost. The direct cost in addition to materials and other labor furnished by the Contractor may include a reasonable proportion of the time of the foreman and timekeeper, together with establishment charges and insurance. It shall not include any charge for the use of tools, or for time spent by the Contractor.

If this Proposal shall be accepted by the Board, the bidder agrees to execute and deliver, in triplicate, the Contract in the form on file in the office of the City Engineer, and for the prices named in this Proposal, within ten days (not including Sundays and holidays) from the date when a written notice is mailed to said bidder at the address herein given, stating that the Contract has been awarded him and is ready for his signature.

The bidder also agrees that, at the time of signing the Contract, he will furnish and deliver a Bond in the form on file with the City Engineer in the sum of thirty-five thousand dollars ($35000) with a surety company or surety companies satisfactory to the Board, as surety.

The bidder further agrees that this Proposal shall remain in force until the acceptance of this or some other Proposal and the following formal execution and delivery of the Contract and the furnishing and acceptance of the Bond.

Accompanying this Proposal is a certified check payable to the order of the Board of Sewer Commissioners of the City of Franktown for the sum of four thousand five hundred dollars ($4500) which has been deposited with the Board as required.

In case the bidder shall fail to so execute and deliver the Contract and furnish and deliver the Bond as required within ten days as stated, then the Board may, at its option, consider that the bidder has abandoned his Contract, in which case the certified check for four thousand five hundred dollars ($4500) accompanying this Proposal, and the amount thereof, shall become the property of the Board, and in consideration of the receipt by the Board of said certified check, and the payment thereof, this Proposal and its acceptance shall become in other respects null and void, the bidder shall be released from other damages, and the Board shall be at liberty to make Contracts with other parties as it sees fit. But if the bidder shall execute the Contract, and give Bond as required within the time aforesaid, the certified check shall be returned to him forthwith.

The bidder in connection with this Proposal and as part of it, has made a sworn statement upon the form provided, as to what work he has done of a similar character to that included in the Contract to which this Proposal refers, and has given

references from which the Board shall determine his responsibility, experience, skill, and business standing.

.....
.....
.....

(Each and every person bidding and named above must sign above. In the case of a firm give the first and last name of each and every party in full, with residence.

In case a bid shall be submitted by or in behalf of any corporation, it must be signed in the full legal name of such corporation by some authorized officer or agent thereof, who shall also subscribe his name and office and a statement that he acted with proper authority. If practicable, the seal of the corporation must be affixed.)

NOTE.— The person, or all persons making this bid must swear to the following affidavit, and in case of a corporation this affidavit must be made by one of its officers as an individual. If the affidavit is made out of the County of ....., a certificate must be attached showing the authority of the official before whom the affidavit was made.

B.

State of.....
County of..... } ss.

.....being duly sworn says: I am[1].....
the bidder above named. I have read the foregoing Proposal. The same is in all respects true.

Subscribed and sworn to before me
this.....day of.....19.. } .....
.....

C. In case of a corporation the affidavit may be as follows:

State of.....
County of..... } ss.

.....(*Name of officer*)
being duly sworn says that he signed the foregoing Proposal as the act of the .....
.....Company as its ....., and that he acted with proper authority in so doing, and he further says that the several matters stated in the above Proposal are in all respects true.

Subscribed and sworn to before me
this.....day of.....19..

.....
.....

D.

State of.....
County of ..... } ss.

.....being duly sworn says that he is*.....
.....
has done work for the following parties of the kind and approximate amount shown:

Party	Kind of Work	Total Amount
.....	.....	.....
.....	.....	.....
.....	.....	.....

[1] If a member of a firm, this should be stated.

and gives the following as references as to his responsibility, experience, skill and business standing:.....
.....
.....
.....
.....
.....

Subscribed and sworn to before me this.....day of.....19..

.....

* Is a member of the firm of .....
and that said firm
or Is an officer of ..... a corporation,
and that said corporation

E. The bidder is requested to state below the name and address of the surety company, or surety companies, offered as security on the Bond to be given for the faithful performance of the Contract; if more than one security company acts as surety, the bidder must state the amount in which each will qualify.

.....
.....
.....

In one form in use the bidder is "required" to state the name of the surety company offered, and the Information for Bidders states that:

F. Failure to name sureties will be sufficient cause for the rejection of a proposal.

With this is provided a form for the surety's consent:

G. **Surety Company's Consent**

Whereas, bids for the construction of sewers are to be opened by the Board of Sewer Commissioners of the City of Franktown, Mass., on March 10, 1917; in case the Contract for construction shall be awarded to ..... and in consideration of such award, the ..... Surety Company consents and agrees that it will become bound, as surety for the faithful performance of said contract, and will execute a Bond in the sum of thirty-five thousand dollars ($35,000) in the form of Bond required and on file in the office of the City Engineer of Franktown.

.....Surety Company.
.....*Name of officer.*

State of.....
County .....} ss.:

On this ..... day of ..... 19...., before me personally came....
.....
to me known and known to me to be the same person described in and who executed the foregoing consent for and in behalf of the ..... Surety Company and he

acknowledged to me that he acted with proper authority and executed the same as the act of said Surety Company and for the purpose therein mentioned.

.....

.....

Whatever may be done as to requiring the name of the surety and demanding the surety's consent, any provision as to these should not be made a part of the Proposal to such an extent that the acceptance of the Proposal can possibly be construed as an acceptance of the surety. It is quite possible that the Proposal may be acceptable and accepted, but that the surety first offered may be unacceptable, so that there ought to be opportunity for the bidder to furnish later an acceptable surety. The "request" to furnish the name of surety would often be complied with and action accelerated by so doing.

The following provision occurs in a form in use:

H. It is understood that the acceptance of this Proposal by the Commission shall not be construed as an approval of the sureties or securities named in this Proposal, and in case the sureties or securities named in this Proposal are not approved by the Commission, the undersigned, within five (5) days after notice of disapproval or within such further period, if any, as may be prescribed by the Commission, shall substitute the names of other sureties or securities approved by the Commission.

Taking up the features of the Proposal, for the first clause there are various alternative forms in use by others as follows:

I. The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are named on page ... that this proposal is made without collusion with any other person, firm or corporation.

J. The undersigned (hereinafter called the Contractor) hereby declares that the only persons interested in this bid as principals are named herein; that no person acting for, or employed by, the City of ..... is directly or indirectly interested in this bid, or in any contract which may be made under it, or in expected profits to arise therefrom; and that this bid is made in good faith without fraud or collusion with any other bidder bidding for this contract.

K. The undersigned also hereby declares that he is the only person interested in this proposal; that it is made without any connection with any other person making any bid for the same work; that no person acting for, or employed by, the City of ..... is directly or indirectly interested in this proposal, or in any contract which may be made under it, or in expected profits to arise therefrom; and that this proposal is made in good faith, without collusion or connection with any other person bidding for the same work; and that this proposal is made with distinct reference and relation to the plans, drawings and specifications prepared for this case, and herein mentioned.

L. He further states that he has not directly or indirectly entered into any combination, collusion, undertaking or agreement with any other bidder or bidders

to maintain the price of any contract or work, or to prevent any bidder or bidders from submitting proposals, or to induce any bidder or bidders to refrain from submitting proposals on any contract or work, and that said proposal so made is without reference or regard to any other proposal or proposals, and without agreement, understanding or combination, either directly or indirectly, with any other person or persons with reference to such bidding in any way or manner whatsoever.

M. This Proposal is made without any connection with any other person making a proposal or bid for the same purpose and is in all respects fair and without collusion or fraud. No member of the Board of Aldermen, head of department, chief of bureau, deputy thereof or clerk therein or other officer of the City or any member or employee of the Board is interested directly or indirectly, as contracting party, partner, stockholder or otherwise, in or in the performance of the contract or in the supplies, work or business to which it relates or in any portion of the profits thereof.

N. That there are no persons interested with the undersigned in this proposal, except[1] .....

The provision in the second paragraph of the sample form as to default and arrears is somewhat unusual, and the question of fact as to arrears may sometimes offer difficulty. The statement that there is no suit or claim pending tends to cure that difficulty. The City or other principal is justified in not entering into a Contract if its relations with the Contractor are such that a controversy is probable.

The provision contained in the third paragraph includes the Proposal as to prices and differs somewhat in different forms as appears below:

O. The undersigned hereby declares that he has carefully examined the annexed form of contract and specifications, the plans therein referred to, and also the site upon which the projected work is to be performed, and will provide all necessary machinery, tools, apparatus and other means of construction, and do all the work and furnish all the materials called for by said contract and specifications, in the manner and on the terms and conditions therein set forth, and observe and perform all the covenants in said contract contained, for the following sums:

P. The undersigned hereby declares that he has carefully examined the annexed form of contract and specifications, and the drawings therein referred to, and will provide all the necessary machinery, tools, apparatus, and other means of construction, and do all the work and furnish all the materials (called for by said contract and specifications) in the manner prescribed in the contract and specifications, and requirements under them of the Engineer, for the following sums, to wit:

Q. That he has carefully examined the annexed form of contract and specifications, and the drawings therein referred to; that he has informed himself fully in regard to all conditions pertaining to the place where the work is to be done, and has carefully estimated on the work; and he hereby bids, in accordance with

[1] The except will be crossed out if no other person is interested.

the Information for Bidders, to provide all necessary machinery, tools, apparatus and other means for construction, and to do all the work and furnish all the material called for by said contract and specifications, in the manner and time therein prescribed and according to the requirements of the Board, including all incidental work, for the following sums, to wit:

R. That he has carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to; and he proposes, and agrees if this proposal is accepted, that he will contract with the Board, in the form of the copy of the contract deposited in the office of the City Engineer, to provide all necessary machinery, tools, apparatus and other means of construction and to do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefor the sum of ..... ($.....).

S. To furnish all necessary labor, materials, plant, power, light, heat, water, tools, supplies and other means of construction and perform all the work mentioned in the said contract at the prices for the several items as given in the following Schedule:

T. The undersigned has also read and considered the foregoing "Requirements for Bidding and Instructions to Bidders," and proposes to furnish all the materials and to do all the work called for on said plans and in said specifications for the furnishing, fabrication and delivery of all metal work for the superstructure of said bridge, and to furnish all materials, tools, labor and all appliances and appurtenances necessary to the full completion of the same, at the rates and prices for said work, as follows, to-wit:

The sample form uses the expression "furnish and do everything required by the Contract to which this refers." The Proposal is in part to sign the Contract, and the detail of the words necessary need appear only in the Contract, and should appear fully there.

The word "prices" seems more appropriate than "sums" where unit prices are stated; sometimes the words "unit prices" are used. Where a lump sum is bid the word "sum" seems more fitting than "price," although the latter is entirely appropriate.

The provision for extra work has sometimes been in one of the following forms:

U. For extra work or materials, if any, as specified under Article ... the reasonable cost of the work or materials, as agreed or as determined by the Engineer, plus ten (10) per cent of such cost.

V. For extra work, if any, performed in accordance with Article ... of the annexed form of contract, the reasonable cost of the work as determined by the Engineer, whose determination shall be final, plus 15 per cent of such cost.

W. For all extra work done by written order of the Engineer not similar in character to the items above specified, and for which no price is set in the said written order, its actual and reasonable cost to the Contractor, as determined by the Engineer, plus 15 per cent of said cost.

The provision as to extra work is lacking in most Proposals, and if it does appear in the Contract the lack is not of great importance. Where competitive bidding is required, the inclusion of this clause makes the Proposal more complete in itself, and some courts might consider it desirable or even necessary. The chapter on Uniform Contract Form shows a section providing for extra work.

In the Proposal it is not uncommon to find some such provision as the following:

X. It is understood that the quantities of various items specified in the following Schedule are approximate only and are given as a basis for the uniform comparison of bids and are not in any way guaranteed or represented as correct or intended to be relied upon, and they shall not be taken as final and shall form no basis for any claim in case they do not correspond with the final measurements or quantities. It is further understood that the Commission reserves the right to increase or to diminish or to omit entirely any of the quantities of items as therein stated.

This seems unnecessary in the Proposal. The Proposal necessarily refers to the formal Contract. The bidder states that he has examined the form of Contract, and agrees to execute it; the Contract should include such a provision; it is not necessary that the Proposal should do so. In the form shown above it is equivalent to an agreement that no claim shall be made. It is essentially a Contract provision.

The clause touching the surrender of the certified check usually differs somewhat from that shown in the sample Proposal, as appears below:

Y. If this proposal shall be accepted by the Board of Water Commissioners, and the undersigned shall fail to contract as aforesaid, and to give bond in the sum of forty thousand dollars ($40,000), with surety or sureties satisfactory to the Board, within ten days from the date of the award of this contract, then he shall be considered to have abandoned it, and the certified check for five thousand dollars ($5000) accompanying this proposal shall be forfeited to, and become the property of the Board of Water Commissioners of the City of .....; otherwise the accompanying check shall be returned to the undersigned.

Z. If this proposal shall be accepted by the Board, and the undersigned shall fail to contract as aforesaid, and to give bond in the sum of one thousand two hundred fifty dollars ($1,250) with surety or sureties satisfactory to the Board, within six days (not including Sunday) from the date of the mailing of a notice from the Commission to him, according to the address herewith given, that the contract is ready for signature, then the Board may at its option determine that the bidder has abandoned the contract, and thereupon the proposal and acceptance shall be null and void, and the certified check for one hundred twenty-five dollars ($125) accompanying this proposal shall become the property of the City; otherwise the accompanying check shall be returned to the undersigned.

a. Accompanying this proposal is a certified check payable to the City for two hundred and fifty dollars ($250) which it is agreed shall become the property

of the City if, in case this proposal is accepted by the Board, the undersigned shall fail to execute the contract with said Board under the conditions of this proposal, within the time provided for by the notice to contractors; otherwise said check shall be returned to the undersigned.

b. Accompanying this proposal is a certified check for one thousand dollars ($1,000), which shall become the property of the City, if, in case this proposal shall be accepted by the Board, the undersigned shall fail to execute a contract with, and give bond to, said City, according to the requirements of the Information for Bidders, within the time provided for by the said notice, said check to be given and received as full consideration and compensation to the City for all loss, delay and damage caused to it by said failure of the undersigned. If, however, the contract and bond are executed and delivered according to the requirements of the said notice, the said check shall be returned to the undersigned.

c. If this proposal shall be accepted by the Commissioners of Sewerage, and the undersigned shall fail to contract as aforesaid and give a bond in the sum of .....thousand dollars ($.....) with surety satisfactory to the Commissioners of Sewerage, within ten days (not including Sundays and legal holidays) from the date of the mailing of a notice from the Commissioners of Sewerage to him, according to the address herewith given, that the contract is ready for signature, then the Commissioners of Sewerage may, at their option, determine that the undersigned has abandoned the contract, and thereupon the proposal and acceptance shall be null and void, and the certified check for ..... dollars accompanying said proposal shall become the absolute property of the Commissioners of Sewerage to reimburse them for any expense or delay which they may incur, and to indemnify them for any loss or damge which they may sustain by the failure of the undersigned to execute contract and furnish bond as aforesaid; and it is now agreed by the undersigned that said check and the amount thereof may be collected and retained by said Commissioners as liquidated damages should he fail, after said award, to execute the contract or furnish bond in accordance with the terms of this proposal.

d. And also agrees that the certified check, payable to the City, and the amount thereof is the amount of the damages which the City will sustain by failure to carry out the proposal, but if this proposal is not accepted, or if notice is mailed or delivered and the undersigned executes and delivers said contract and bond as aforesaid, the check, or its amount, is to be paid to him on receipt therefor.

e. It is hereby agreed that in the event that the undersigned is awarded the contract for the work herein mentioned, and shall fail or refuse to execute a contract for the work so awarded and to furnish the specified bond within seven (7) days after receiving notice of the award of the said contract to the undersigned, then, in that case, the said sum deposited with this proposal shall be retained by the Board as liquidated damages and not as a forfeiture, IT BEING NOW AGREED that said sum of THREE HUNDRED DOLLARS ($300.00) deposited with this proposal for the work so awarded is the fair measure of the amount of damages that The Board will sustain in case the undersigned shall fail or refuse to enter into the contract so awarded, and to furnish bond, as specified in said contract.

Attention should be called to the fact that, in the above alternative readings, there is not an express agreement to execute the Contract and

give Bond, nor to execute the Contract "for the prices named." A lack as to these features leads to a failure in some degree for the acceptance of the Proposal to constitute a complete agreement on these points, an agreement for whose breach a suit for damages could be successfully maintained. The alternative form, "if the bidder fails" etc., leads to a provision for the payment of the certified check as liquidated damages or otherwise, but the surrender of the check as consideration for making the contract null and void otherwise, as in the sample form, seems more direct and complete and less liable to attack.

Attention is especially called to the fact that the bidder, in the sample Proposal, agrees to execute the Contract, and to furnish the Bond, in both cases "in the form on file in the office of the City Engineer." This makes the agreement definite and leaves no chance for misunderstanding as to the form of these documents.

A clause in use provides specifically that the acceptance of the Proposal shall operate as appears below:

f. A notice that this Proposal has been accepted addressed to the undersigned by the Board as aforesaid shall forthwith, at the option of the Board, operate as against the undersigned as a complete making of a Contract according to the form thereof as aforesaid, with the blanks therein contained filled in according to this Proposal.

This appears to be simply a re-affirmation of the Common Law which is hardly subject to question. Some engineers may prefer to include it.

In the following form there is an express provision by the bidder which is also in an excellent form generally:

g. If this Proposal is accepted and the proposed contract consented to by the Board, the undersigned will within three (3) days after the delivery of notice attend at the office of the Board, in person or by duly authorized representative, and will then and there deliver the contract with the City in the form aforesaid duly executed and with its execution duly proved; and the undersigned will at the same time deliver to the Comptroller of the City pursuant to the terms of said contract *a bond in the sum of forty thousand dollars* ($40,000) *in the form annexed hereto and made a part hereof, with the following named sureties or, in the event that the following named sureties or any of them shall not be approved by the Board, with such other sureties as the Board shall approve.*

The following form provides that the bidder shall pay full damages if he fails to sign the contract and to give Bond as required. The certified check furnishes security, not always sufficient, but the bidder commonly has some financial responsibility in addition to this. Most Contractors, in bidding, prefer to know the maximum liability incurred in bidding.

h. At the time of delivering this Proposal to the Board the undersigned will separately deliver a certified check payable to the order of the City for the sum of

ten thousand dollars ($10,000). And the undersigned hereby assigns to the City the said sum so specially deposited by the delivery of such certified check as security for the performance of the obligations of the undersigned under this Proposal. It is understood that such check is to be returned to the undersigned when the contract for the construction of the station finish for said Sections Nos. 7 to 11, inclusive, of Route No. 5, is executed and its provisions in respect of the bond or deposit are complied with, unless all the proposals submitted in response to said Invitation to Contractors shall be rejected by the Board, and in that case when such proposals are rejected, as provided in the Information for Contractors. In case the undersigned shall default in the performance of any of the obligations of the undersigned under this Proposal, the City shall have the right to apply the amount so specially deposited or so much thereof as may be necessary as a payment on account of the damages sustained by the City by reason of such default as aforesaid and shall return the balance, if any, to the undersigned. If the amount of such damages shall exceed the amount of said sum so specially deposited, the undersigned shall promptly upon demand from the Board pay the amount of such excess to the City.

Whatever the form used, it is essential that the notice be given in the words specified, and that there be adequate evidence as to such notice. In the sample form provision is made for signing "within ten days from the date when a written notice is mailed to said bidder at the address herein given, stating that the Contract has been awarded him and is ready for his signature." Time is sometimes saved by a verbal notice, but even then the formal notice should be sent, and the specified words used. This written notice should not be tossed into the general mail, and should not be intrusted to the office boy. Some responsible person should deposit it in the post office or in a mail box and be ready to testify to that fact. Since large sums of money are often involved, it is also worth while to have an additional witness who has seen the notice enclosed in the envelope and afterwards mailed.

The sample form also contains a provision that the Proposal shall remain in force until the Contract has been awarded and executed and the Bond furnished. This seems more nearly adequate than a clause in the Information for Bidders that no bid may be withdrawn after it has been deposited. Another excellent reading is shown below:

i. The undersigned hereby accepts the invitation of said Board to submit a proposal on said work on the express understanding that he will not withdraw this proposal or cause the same to be withdrawn, and that the Board will hold this proposal and the sum deposited herewith until all of the proposals submitted have been canvassed and a contract for said work has been awarded and signed and the specified bond furnished and approved.

Some forms provide that a surety Bond shall be furnished instead of the certified check, and a form of Bond for this purpose may be found in the chapter on Bond.

OPENING OF THE BIDS

At the specified time the bids should be publicly opened and read aloud, so that bidders present, or their agents, may have adequate knowledge of all the bids. The bids should preferably be opened by a member of the Board. In large cities the official in charge of the letting may be a single Commissioner of Public Works, or some similar official, who has no time available for such purposes. It is customary in such a case for the Chief Clerk to perform this function of opening the bids.

The bids are then taken under advisement for comparison and determination, and reasonable time is allowable for such purposes. The amounts must be carried out and summed up, and the qualifications of the bidder as a Contractor must be passed upon.

AWARD

Then follows the "award," and the action of the Board may or may not be controlled by statute or by ordinance. There are many public Boards that are not required to advertise and are not restricted as to the award. For railroad or other private work there are usually no restrictions either as to Advertisement or award.

When the mode of contracting is prescribed and limited by charter or ordinance, this must be definitely pursued or the Contract will not bind the municipality. Where such mode is prescribed, the municipality has no power to proceed otherwise, and the making of a Contract is *ultra vires* and invalid if made in any other way. Ratification of any such action may be made only by the proper authority. The legislature may not ratify action contrary to the Constitution; the municipal Council may not ratify acts contrary to the charter, but may ratify acts where municipal ordinances only have been transgressed.

Where competitive bidding is required, the steps taken must be such as in good faith to invite competition. Competition may be dispensed with in certain cases of emergency, monopoly or exclusive right, patented inventions, proprietary articles, where professional skill is involved, or where selection is made on tests. The action even here must be in good faith.

Statutes as to advertising and statutes prescribing methods of opening bids are mandatory, and are for the protection of the tax paying public. The acceptance of a bid where all mandatory requirements have not been observed, does not (cannot) make a valid Contract. Statute requirements as to hours of labor, employment of union labor, and the like have in some cases been held to be unconstitutional, giving a citizen a right to enjoin if he takes prompt action before the Contract is entered into. The advice

of a practicing attorney is indicated when such requirements apparently must be complied with.

Where a statute or ordinance requires letting to the lowest bidder, no award to any other is allowable. All bids, however, may be rejected. When the lowest bidder has failed to enter into the Contract it sometimes has been held that the Contract might be awarded to the next lowest bidder without re-advertising, but the next lowest bidder cannot compel such action. The provision for letting to the lowest bidder is not for his benefit, but to protect the tax payers, and the lowest bidder has no "right" to the acceptance of his bid. The law, however, is not uniform in all States, as to the right to award to the next lowest bidder in case the lowest bidder fails to execute the Contract and file the Bond. Some courts have held that the certified check or Bond is a sufficient protection to the taxpayer. In some States, the courts hold re-letting to be necessary. Where an award has been made to the lowest bidder under a requirement to do so and he has failed to comply with the conditions imposed by his Proposal, he should have opportunity to be heard before an award is made to the next lowest bidder.

Unless the lowest bidder is specified and required, or where provision is made for letting to the "lowest responsible bidder," or to the "lowest and best bidder," the courts have usually held it to confer discretionary powers upon the public officers to determine the responsibility of the bidder and the acceptability of his surety; the action of such officials has a judicial character, and consideration may be given to financial responsibility and to the skill, ability, and integrity required. The official, however, cannot exercise his discretion arbitrarily and without reason. While arbitrary determination is not allowable, the courts are slow to interfere with the action of officials in their discretion, and although the acts and requirements of a Board of Public Works are subject to review by the courts, nevertheless, the acts being discretionary, the courts do not interfere unless the motive is fraudulent or does positive injury; they sometimes tolerate restrictions and requirements for which no just cause has been assigned and which are frequently burdensome to bidders.

It is further true that no public officer is responsible in a civil suit where his acts have been judicial or discretionary, however erroneous; but the wilful award of a Contract by a city official, wrongfully and with evil intent, is a criminal offence and may lead to indictment, although in practice it is difficult to pursue such a case to a satisfactory conclusion.

Not only is it necessary that the Proposals should one and all be made upon precisely the same data and with the same means offered to all, but it is also requisite that the Contract should be executed in the form, under the same terms, and according to the plans and Specifications upon which the

bid was made; the bidder should insist on this. If there is a change, there is not a compliance with the statute requirements. The provisions of the Contract that the City Engineer or Chief Engineer may make changes are all right provided these do not materially change the character and cost. Extra work also is legally limited to such reasonable small amounts as are necessary to the Contract. Intent and good faith are the important elements where any controversy arises on these points; ordinarily the evidence would need to be strong to disturb acts in the discretion of the Engineer. Cases are not altogether rare, however, where this has been done.

CHAPTER XVI

UNIFORM CONTRACT FORM

A valid Contract exists provided only that the four essentials are present:

1. Mutual assent to the terms of the agreement.
2. Competent parties.
3. A valid consideration, actual or presumed.
4. Definite and lawful subject matter to be acted upon.

This chapter deals with the subject matter. While it is true that a Contract exists provided only that these four essentials are present, it is yet necessary, when something is to be done, that the terms should be sufficiently explicit so that exactly what is wanted is properly set forth. Experience has established many points necessary to be covered in Contracts for public work or other work of a similar character. This chapter will be devoted to a consideration of those provisions covering the subject matter which have been found essential or desirable in such work, so that there results not only a Contract, but a well drawn Contract.

In such work, the written description of what is to be done is divided into two parts, the Contract proper and the Specifications. The Contract very commonly refers to the Specifications "which are hereby made a part of this Contract," and the Specifications in turn are supplemented by plans or drawings "which are hereby made a part of these Specifications."

The Contract proper should cover the agreement and such parts of the work to be done as are general in character and applicable to almost any work, without close reference to its immediate character. The Specifications, as the name suggests, should specify the materials, workmanship and methods necessary to secure satisfactory work of any special sort, and strictly should not include any clauses of agreements.

It is sometimes found difficult to observe a clear line of demarcation between Contract and Specifications. As an outcome, it is not uncommon for the Specifications to be included within the body of the Contract, so that the signatures are subscribed at the bottom of the document of

which the Specifications form a part. On the contrary, it is also common to have the Contract a shorter document which refers to the Specifications as a part of the Contract, although these are not bodily included within its limits. In the case of most public work, the forms of Instructions to Bidders, Proposal, Bond, Contract, and Specifications are printed and bound together in a pamphlet or booklet where all may conveniently be read and considered together.

There is very little choice as to which method should be adopted. Since it is very difficult to separate completely Contract agreements from Specifications, there seems to be some theoretical advantage in having the Specifications included in the body of the Contract. On the other hand, there is a practical advantage, sometimes, in having a general Contract Form in print, and then referring to Specifications for each class of work, with a statement that these Specifications are made a part of the Contract. As a matter of experience, it is not apparent that any vital fault exists in well written Contracts in either form.

The American Railway Engineering Association has seen fit to keep the Specifications separate and has provided a general " Uniform Contract Form " which contains very much that is commendable, and which is favorably regarded by the surety companies and by many Contractors. This form, the one in use in 1917, is shown below as a standard or basis for discussion.

AGREEMENT FORM

(Copyright, by American Railway Engineering Association, 900 South Michigan Avenue, Chicago, Ill., March, 1913).

THIS AGREEMENT, made this .....day of..... in the year.....by and between..... party of the first part, hereinafter called the Contractor, and..... party of the second part, hereinafter called the Company.

WITNESSETH, That, in consideration of the covenants and agreements hereinafter mentioned, to be performed by the parties hereto and of the payments hereinafter agreed to be made, it is mutually agreed as follows:

The Contractor shall furnish all the materials, superintendence, labor, equipment and transportation, except as hereinafter specified, and shall execute, construct and finish, in an expeditious, substantial and workmanlike manner, to the satisfaction and acceptance of the Chief Engineer of the Company,

(*Here follows a statement of the work to be performed.*)

in accordance with the plans hereto attached, identified by the signatures of the parties hereto, or as herein described, and the following GENERAL CONDITIONS, requirements and specifications, forming part of this contract.

The work covered by this contract shall be commenced.....
.....and be completed on or before the .....day of
.....191.. time being of the essence of this contract
.....
.....

And in consideration of the completion of the work described herein, and the fulfillment of all stipulations of this agreement to the satisfaction and acceptance of the Chief Engineer of the Company, the said Company shall pay, or cause to be paid, to said Contractor, the amount due the Contractor, based on the following prices:

(*Here follows a statement of prices.*)

CONSTRUCTION CONTRACT

GENERAL CONDITIONS

1. BOND. The Contractor shall, at the time of the execution and delivery of this contract and before the taking effect of the same in other respects, furnish and deliver to the Company a written bond of indemnity to the amount of ..... dollars, in form and substance and with surety thereon satisfactory and acceptable to the Company, to insure the faithful performance by the Contractor of all the covenants and agreements on the part of the Contractor contained in this contract.

This bond shall remain in force and effect for the full amount or such smaller amount as may at any time be specified by the Chief Engineer.

2. CONTRACTOR'S UNDERSTANDING. It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way affect the work under this contract. No verbal agreement or conversation with any officer, agent or employe of the Company, either before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.

3. INTENT OF PLANS AND SPECIFICATIONS. All work that may be called for in the specifications and not shown on the plans, or shown on the plans and not called for in the specifications, shall be executed and furnished by the Contractor as if described in both these ways; and should any work or material be required which is not denoted in the specifications or plans, either directly or indirectly, but which is nevertheless necessary for the proper carrying out of the intent thereof, the Contractor is to understand the same to be implied and required, and shall perform all such work and furnish any such material as fully as if they were particularly delineated or described.

4. PERMITS. Permits of a temporary nature necessary for the prosecution of the work shall be secured by the Contractor. Permits for permanent

structures or permanent changes in existing facilities shall be secured by the Company.

5. PROTECTION. Whenever the local conditions, laws or ordinances require, the Contractor shall furnish and maintain, at his own cost and expense, necessary passageways, guard fences and lights and such other facilities and means of protection as may be required.

6. RIGHTS OF VARIOUS INTERESTS. Wherever work being done by Company forces or by other contractors is contiguous to work covered by this contract, the respective rights of the various interests involved shall be established by the Engineer, to secure the completion of the various portions of the work in general harmony.

7. CONSENT TO TRANSFER. The Contractor shall not let or transfer this contract or any part thereof (except for the delivery of material) without consent of the Chief Engineer, given in writing. Such consent does not release or relieve the Contractor from any of his obligations and liabilities under the contract.

8. SUPERINTENDENCE. The Contractor shall constantly superintend all the work embraced in this contract, in person or by a duly authorized manager acceptable to the Company.

9. TIMELY DEMAND FOR POINTS AND INSTRUCTIONS. The Contractor shall provide reasonable and necessary opportunities and facilities for setting points and making measurements. He shall not proceed until he has made timely demand upon the Engineer for, and has received from him, such points and instructions as may be necessary as the work progresses. The work shall be done in strict conformity with such points and instructions.

10. REPORT ERRORS AND DISCREPANCIES. If the Contractor, in the course of the work, finds any discrepancy between the plans and the physical conditions of the locality, or any errors or omissions in plans or in the layout as given by said points and instructions, it shall be his duty to immediately inform the Engineer, in writing, and the Engineer shall promptly verify the same. Any work done after such discovery, until authorized, will be done at the Contractor's risk.

11. PRESERVATION OF STAKES. The Contractor must carefully preserve bench marks, reference points and stakes, and in case of willful or careless destruction, he will be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

12. INSPECTION. All work and material shall be at all times open to the inspection, acceptance, or rejection of the Engineer or his duly authorized representative. The Contractor shall give the Engineer reasonable notice of starting new work and shall provide reasonable and necessary facilities for inspection, even to the extent of taking out portions of finished work;

in case the work is found satisfactory, the cost of taking out and replacement will be paid by the Company. No work shall be done at night without the previous approval of the Engineer.

13. DEFECTIVE WORK OR MATERIAL. Any omission or failure on the part of the Engineer to disapprove or reject any work or material shall not be construed to be an acceptance of any defective work or material. The Contractor shall remove, at his own expense, any work or material condemned by the Engineer, and shall rebuild and replace the same without extra charge, and in default thereof the same may be done by the Company at the Contractor's expense, or, in case the Chief Engineer should not consider the defect of sufficient importance to require the Contractor to rebuild or replace any imperfect work or material, he shall have power, and is hereby authorized, to make an equitable deduction from the stipulated price.

14. INSURANCE. The Contractor shall secure in the name of the Company, policies of fire insurance in amount, form, and companies, satisfactory to the Chief Engineer, upon such structures and material as shall be specified by the latter, payable to the Company for the benefit of the Contractor or the Company as the Chief Engineer shall find their interests to appear.

15. INDEMNITY. The Contractor shall indemnify and save harmless the Company from and against all losses and all claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against it, by reason of any act or omission of the said Contractor, his agents or employes, in the execution of the work or in consequence of any negligence or carelessness in guarding the same.

16. SETTLEMENT FOR WAGES. Whenever, in the opinion of the Chief Engineer, it may be necessary for the progress of the work to secure to any of the employes engaged on the work under this contract any wages which may then be due them, the Company is hereby authorized to pay said employes the amount due them or any lesser amount, and the amount so paid them, as shown by their receipts, shall be deducted from any moneys that may be or become payable to said Contractor.

17. LIENS. If at any time there shall be evidence of any lien or claim for which the Company might become liable and which is chargeable to the Contractor, the Company shall have the right to retain out of any payment then due or thereafter to become due, an amount sufficient to completely indemnify the Company against such lien or claim, and if such lien or claim be valid, the Company may pay and discharge the same, and deduct the amount so paid from any moneys which may be or become due and payable to the Contractor.

18. WORK ADJACENT TO RAILROAD. Wherever the work embraced in this contract is near the tracks, structures or buildings of this Company or of other railroads, the Contractor shall use proper care and vigilance to avoid injury to persons or property. The work must be so conducted as not to interfere with the movement of trains or other operations of the railroad; or, if in any case such interference be necessary, the Contractor shall not pro-

ceed until he has first obtained specific authority and directions therefor from the proper designated officer of the Company and has the approval of the Engineer.

19. RISK. The work under this contract in every respect shall be at the risk of the Contractor until finished and accepted, except damage or injury caused directly by Company's agents or employes.

20. ORDER AND DISCIPLINE. The Contractor shall at all times enforce strict discipline and good order among his employes, and any employe of the Contractor who shall appear to be incompetent, disorderly or intemperate, or in any other way disqualified for or unfaithful to the work intrusted to him, shall be discharged immediately on the request of the Engineer, and he shall not again be employed on the work without the Engineer's written consent.

21. CONTRACTOR NOT TO HIRE COMPANY'S EMPLOYES. The Contractor shall not employ or hire any of the Company's employes without the permission of the Engineer.

22. INTOXICATING LIQUORS PROHIBITED. The Contractor, in so far as his authority extends, shall not permit the sale, distribution or use of any intoxicating liquors upon or adjacent to the work, or allow any such to be brought upon, to or near the property of the Company.

23. CLEANING UP. The Contractor shall, as directed by the Engineer, remove from the Company's property and from all public and private property, at his own expense, all temporary structures, rubbish and waste materials resulting from his operations.

24. ENGINEER AND CHIEF ENGINEER DEFINED. Wherever in this contract the word Engineer is used, it shall be understood as referring to the Chief Engineer of the Company, acting personally or through an assistant duly authorized in writing for such act by the Chief Engineer, and wherever the words Chief Engineer are used it shall be understood as referring to the Chief Engineer in person, and not to any assistant engineer.

25. POWER OF ENGINEER. The Engineer shall have power to reject or condemn all work or material which does not conform to this contract; to direct the application of forces to any portion of the work which, in his judgment, requires it; to order the force increased or diminished, and to decide questions which arise between the parties relative to the execution of the work.

26. ADJUSTMENT OF DISPUTE. All questions or controversies which may arise between the Contractor and the Company, under or in reference to this contract, shall be subject to the decision of the Chief Engineer, and his decision shall be final and conclusive upon both parties.

27. ORDER OF COMPLETION; USE OF COMPLETED PORTIONS. The Contractor shall complete any portion or portions of the work in such order of time as the Engineer may require. The Company shall have the right to take possession of and use any completed or partially completed por-

tions of the work, notwithstanding the time for completing the entire work or such portions may not have expired; but such taking possession and use shall not be deemed an acceptance of the work so taken or used or any part thereof. If such prior use increases the cost of or delays the work, the Contractor will be entitled to such extra compensation, or extension of time, or both, as the Chief Engineer may determine.

28. CHANGES. The Company shall have the right to make any changes that may be hereafter determined upon, in the nature or dimensions of the work, either before or after its commencement, and such changes shall in no way affect or void the obligations of this contract. If such changes make any change in the cost of the work, an equitable adjustment shall be made by the Chief Engineer to cover the same.

29. EXTRA WORK. No bill or claim for extra work or material shall be allowed or paid unless the doing of such extra work or the furnishing of such extra material shall have been authorized in writing by the..... Engineer.

The price for such work shall be determined by the Chief Engineer, who may either fix a unit price or a lump-sum price, or may, if he so elects, provide that the price shall be determined by the actual cost, to which shall be added ..... per cent. to cover general expense and superintendence, profits, contingencies, use of tools, Contractor's risk and liability. If the Contractor shall perform any work or furnish any material which is not provided for in this contract, or which was not authorized in writing by the Engineer, said Contractor shall receive no compensation for such work or material so furnished, and does hereby release and discharge the Company from any liability therefor.

If the Contractor shall proceed with such extra work or the furnishing of such extra material after receiving the written authority therefor, as hereinbefore provided, then such work or material, stated in the written authority of the Engineer, shall be covered, governed and controlled by all the terms and provisions of this contract, subject to such prices as may be agreed upon or fixed by the Chief Engineer.

If the Contractor shall decline or fail to perform such work or furnish such extra material as authorized by the Engineer in writing, as aforesaid, the Company may then arrange for the performance of the work in any manner it may see fit, the same as if this contract had not been executed, and the Contractor shall not interfere with such performance of the work.

30. PROPERTY AND RIGHT OF ENTRY. The Company shall provide the lands upon which the work under this contract is to be done, except that the Contractor shall provide land required for the erection of temporary construction facilities and storage of his material, together with right of access to the same.

The Contractor shall not ship any material or equipment until he has received written notice from the Engineer that he may proceed with said work or any part thereof.

31. UNAVOIDABLE DELAYS; EXTENSION OF TIME ON PARTS OF WORK. If the Contractor shall be delayed in the performance of the work from any cause for which the Company is responsible, he shall, upon

written application to the Chief Engineer at the time of such delay, be granted such extension of time as the Chief Engineer shall deem equitable and just.

32. SUSPENSION OF WORK. The Company may at any time stop the work, or any part thereof, by giving ..... days' notice to the Contractor in writing. The work shall be resumed by the Contractor in ten (10) days after the date fixed in the written notice from the Company to the Contractor so to do. The Company shall not be held liable for any damages or anticipated profits on account of the work being stopped, or for any work done during the interval of suspension. It will, however, pay the Contractor for expense of men and teams necessarily retained during the interval of suspension, provided the Contractor can show that it was not reasonably practicable to move these men and teams to other points at which they could have been employed. The Company will further pay the Contractor for time necessarily lost during such suspension at the rate of ..... per cent. per annum on the estimated value of materials, equipments, and fixtures furnished by the Contractor on the work which are necessarily idle during such suspension, said rate of ..... per cent. per annum being understood to include depreciation, interest and insurance. But if the work, or any part thereof, shall be stopped by the notice in writing aforesaid, and if the Company does not give notice in writing to the Contractor to resume work at a date within ..... of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work so suspended and he will be entitled to the estimates and payments for such work so abandoned, as provided in Section 38 of this contract.

33. (a) EXPEDITING WORK, CORRECTING IMPERFECTIONS. If the Chief Engineer of the Company shall at any time be of the opinion that the Contractor is neglecting to remedy any imperfections in the work, or is not progressing with the work as fast as necessary to insure its completion within the time and as required by the contract, or is otherwise violating any of the provisions of this contract, said Chief Engineer, in behalf of the Company, shall have the power, and it shall be his duty to notify the Contractor to remedy such imperfections, proceed more rapidly with said work, or otherwise comply with the provisions of this contract.

(b) ANNULMENT. In such case the Company may give the Contractor ten (10) days' written notice, and at the end of that time, if the Contractor continues to neglect the work, the Company may provide labor and materials and deduct the cost from any money due the Contractor under this agreement; and may terminate the employment of the Contractor under this agreement and take possession of the premises and of all materials, tools and appliances thereon, and employ such forces as may be necessary to finish the work. In such case the Contractor shall receive no further payment until the work shall be finished, when, if the unpaid balance that would be due under this contract exceeds the cost to the Company of finishing the work, such excess shall be paid to the Contractor; but if such cost exceeds such unpaid balance, the Contractor shall pay the difference to the Company.

(c) COMPANY MAY DO PART OF WORK. Upon failure of the Contractor to comply with any notice given in accordance with the provisions

hereof, the Company shall have the alternative right, instead of assuming charge of the entire work, to place additional forces, tools, equipment and materials on parts of the work for the purpose of carrying on such parts of the work, and the cost incurred by the Company in carrying on such parts of the work shall be payable by the Contractor, and such work shall be deemed to be carried on by the Company on account of the Contractor, and the Contractor shall be allowed therefor the contract price. The Company may retain the amount of the cost of such work, with ..... per cent. added, from any sum or sums due or to become due the Contractor under this agreement.

34 (a) ANNULMENT WITHOUT FAULT OF CONTRACTOR. The Company shall have the right at any time, for reasons which appear good to it, to annul this contract upon giving thirty days' notice in writing to the Contractor, in which event the Contractor shall be entitled to the full amount of the estimate for the work done by him under the terms and conditions of this contract up to the time of such annulment, including the retained percentage. The Contractor shall be reimbursed by the Company for such expenditures as in the judgment of the Chief Engineer are not otherwise compensated for, and as are required in preparing for and moving to and from the work; the intent being that an equitable settlement shall be made with the Contractor.

(b) NOTICE — HOW SERVED. Any notice to be given by the Company to the Contractor under this contract shall be deemed to be served if the same be delivered to the man in charge of any office used by the Contractor, or to his foreman or agent at or near the work, or deposited in the postoffice, postpaid, addressed to the Contractor at his last known place of business.

(c) REMOVAL OF EQUIPMENT. In case of annulment of this contract before completion from any cause whatever, the Contractor, if notified to do so by the Company, shall promptly remove any part or all of his equipment and supplies from the property of the Company, failing which the Company shall have the right to remove such equipment and supplies at the expense of the Contractor.

35. FAILURE TO MAKE PAYMENTS. Failure by the Company to make payments at the times provided in this agreement shall give the Contractor the right to suspend work until payment is made, or at his option, after thirty (30) days' notice in writing, should the Company continue to default, to terminate this contract and recover the price of all work done and materials provided and all damages sustained, and such failure to make payments at the times provided shall be a bar to any claim by the Company against the Contractor for delay in completion of the work due to such suspension or failure to pay.

36. MONTHLY ESTIMATE. So long as the work herein contracted for is prosecuted in accordance with the provisions of this contract, and with such progress as may be satisfactory to the Chief Engineer, the said Chief Engineer will on or about the first day of each month, make an approximate estimate of the proportionate value of the work done and of material furnished or delivered upon the Company's property at the site of the work, up to and

including the last day of the previous month. The amount of said estimate, after deducting ..... per cent. and all previous payments, shall be due and payable to the Contractor at the office of the Treasurer of the Company on or about the .....day of the current month.

37. ACCEPTANCE. The work shall be inspected for acceptance by the Company promptly upon receipt of notice in writing that the work is ready for such inspection.

38. FINAL ESTIMATES. Upon the completion and acceptance of the work the Chief Engineer shall execute a certificate over his signature that the whole work provided for in this agreement has been completed and accepted by him under the terms and conditions thereof, whereupon the entire balance found to be due to the Contractor, including said retained percentage, shall be paid to the Contractor at the office of the Treasurer of the Company within ..... days after the date of said final certificate. Before the time of payment of said final estimate the Contractor shall submit evidence satisfactory to the Chief Engineer that all payrolls, material bills, and outstanding indebtedness, in connection with this work, have been paid.

This agreement shall inure to the benefit of and be binding upon the legal representatives and successors of the parties respectively.

In Witness Whereof, the parties hereto have executed this agreement in .....the day and year first above written.

WITNESS: .....

.....

.....

.....

This Uniform Contract Form is the result of the work of a special committee of the Association. It has been worked out, through careful consideration in Committee, during several years, has had the advantage of extensive discussion at more than one annual meeting, and in the meantime has been submitted to the legal departments of a number of railroads. Its history of careful consideration and formal adoption by the Association seems to justify its use here as a groundwork for the discussion of the important clauses in the provisions of Contracts for public work or for important corporation construction work.

Considering the first clause:

THIS AGREEMENT, made this ..... day of ..... in the year ..... by and between.....

.....

party of the first part, hereinafter called the Contractor, and .....

.....

party of the second part, hereinafter called the Company.

it will be noted that one party is called the " party of the first part," and the other, the " party of the second part." These designations serve to make a clear distinction in describing or naming the two parties to the Contract, and these designations are used for this purpose only in this and many other carefully drawn Contracts. Older Contracts often used " party of the first part " and " party of the second part " throughout the body of the Contract. In good modern practice the term Contractor for one party and the term Company, Board, Commission, City, State, Owner or similar appropriate name for the other party, is used in all cases afterwards in the Contract. It makes no difference whether the Contractor is called " party of the first part " or " party of the second part."

The words used in stating the agreement are found to vary somewhat to suit the taste of the Engineer, or lawyer, or other person who drafts the Contract.

The form given above is:

This agreement made

Two other forms in common use are:

A. This agreement made and entered into

B. This agreement made and concluded

All of these three phrases are well established in use. The simple form " This agreement made " has been adopted both by the American Railway Engineering Association and by the American Institute of Architects, and it seems preferable on the ground of simplicity. Another reading is:

C. Articles of Agreement made, etc., (followed by)
Now this agreement witnesseth, etc.

This seems less simple and to have no advantage over the others.

The next clause is:

WITNESSETH, That, in consideration of the covenants and agreements hereinafter mentioned, to be performed by the parties hereto and of the payments hereinafter agreed to be made, it is mutually agreed as follows:

Slightly different readings, somewhat less simple, are these:

A. Witnesseth, That the parties to these presents, each in consideration of the covenants and agreements on the part of the other, herein contained, do hereby covenant and agree, the party of the first part for itself, and the party of the second part for themselves, and their heirs, executors, administrators and assigns, and

under the penalty expressed in a bond bearing even date with these presents, and hereto annexed, as follows:

B. Witnesseth, that the parties to these presents, each in consideration of the undertakings, promises and agreements on the part of the other herein contained, have undertaken, promised and agreed, and do hereby undertake, promise and agree, the party of the first part for itself, its successors and assigns, and the party (parties) of the second part for himself (themselves) and his (their) heirs, executors and administrators or successors as follows:

It should be noted that the Uniform Contract Form provides near the close of the entire agreement, that:

This agreement shall inure to the benefit of and be binding upon the legal representatives and successors of the parties respectively.

This apparently covers the reference to "heirs, executors, and administrators" which occurs above.

Another reading found elsewhere is this:

C. Witnesseth, that for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the said party of the first part, and under the penalty expressed in the bond bearing even date with these presents, and hereto annexed, the said party of the second part agrees, etc.

A very simple form used in the Standard Contract Form of the "American Institute of Architects" is:

D. Witnesseth that the Contractor, in consideration of the agreements herein made by the Owner, agrees with the Owner as follows:

Another simple form including both clauses discussed above is this:

E. The Cambridge Bridge Commission, a Commission duly created by Chapter 467 of the Acts and Resolves of the Massachusetts Legislature, Session of 1898, and the other party signing this contract, hereinafter designated as Contractor, agree as follows:

Later Contracts, however, made by the same Commission have had a more elaborate form. The above might have been written in this way:

F. The Cambridge Bridge Commission, etc., party of the first part, hereinafter called the Commission, and Benjamin Young, party of the second part, hereinafter called the Contractor, mutually agree as follows:

Then the form would still be simple and yet a trifle clearer. The omission of the words, "each in consideration of the covenants and agreements hereinafter mentioned, to be performed by the parties hereto," etc., seems not important if the Contract in its later terms definitely provides that

each party agrees to do certain things. Probably most lawyers or others drafting a Contract would prefer to have the word " consideration " used in this connection.

Even then, the following simple form has much to commend it:

G. The Cambridge Bridge Commission, etc., party of the first part, hereinafter called the Commission, and Benjamin Young, party of the second part, hereinafter called the Contractor, each in consideration of the agreements to be performed, and the payments to be made by the parties hereto, mutually agree as follows:

In this form, the term " witnesseth " is dispensed with, as are several other words rather formal in character.

One form in use provides that:

H. A, B, and C, the ..... Commission, herein acting for the Commonwealth of Massachusetts, and without personal liability to themselves, and .... hereinafter designated as Contractor, agree as follows:

The Contractor shall furnish all the materials, superintendence, labor, equipment and transportation, except as hereinafter specified, and shall execute, construct and finish, in an expeditious, substantial and workmanlike manner, to the satisfaction and acceptance of the Chief Engineer of the Company,

(*Here follows a statement of the work to be performed.*)

Other readings taken from actual Contract forms are:

A. The contractor agrees, at his own proper cost and expense, to do and complete all the work and furnish all the labor, machinery, tools and materials, except as herein specified, and to do everything required to build, etc.

B. The Contractor shall furnish and do everything, except as herein otherwise provided, necessary to complete the work in accordance with the terms of this contract and with the requirements of the Chief Engineer thereunder.

C. The Contractor agrees at his own expense, to do and complete all the work and furnish all the materials required to be done or furnished by him in the following specifications in a proper, thorough and workmanlike manner, in accordance with the terms of this contract and specifications, and to the satisfaction of the Chief Engineer; and to do all and singular the things in this contract and specifications provided.

D. The Contractor shall and will at his own cost and expense furnish all the materials not otherwise expressly designated to be furnished by the Commission, and do all the work called for by this contract, as set forth in the specification hereinafter contained, to wit:

Other forms are in part as shown below:

E. At his proper cost and expense to do all the work and furnish all materials, tools, labor and all appliances and appurtenances called for by this agreement.

F. All material and supplies, plant, tools, and implements, teams, cars, and tracks; in fact all material and appliances of every sort or kind that may be necessary for the full and complete carrying out of this contract.

G. The Contractor shall provide a complete and adequate construction plant of tools and machinery of a character suitable for performing satisfactorily and expeditiously the various parts of the work, and an effective organization of workmen, mechanics, tradesmen and other employees trained and skilled in their various occupations.

The following form has been used by the Board of Water Supply of New York:

H. The Contractor shall do all the work and furnish all the materials, tools and appliances, except as herein otherwise specified, necessary or proper for performing and completing the work required by this contract, in the manner and *within the time* hereinafter specified. He shall complete the entire work to the satisfaction of the Board, and in accordance with the specifications and drawings herein mentioned.

Another New York form adds to the above:

I. At the prices herein agreed upon and fixed therefor; provided, however, that said contract drawings may from time to time be altered or modified as hereinafter provided.

Reference to Section 28 will show a proper provision for changes, which hardly need to be covered here.

Either of the above readings is valuable because it provides in a general way, independent of Specifications or General Conditions, that the Contractor shall carry out the Contract to the satisfaction of the Chief Engineer. Some Contracts drawn by very competent Boards fail to include this clause. Nevertheless the clause seems important in two particulars; it provides a general clause covering the Contract without specific items which occur later, and it provides that the work shall be done to the satisfaction of the Chief Engineer. The importance of the latter provision will be discussed to better advantage in connection with Section 26. That the New York Water Supply Contract provides for " the satisfaction of the Board " rather than of the Chief Engineer is probably due to a special provision of Statute Law applying to New York City exclusively, and for many Contracts would not be advantageous.

in accordance with the plans hereto attached identified by the signatures of the parties hereto, or herein described, and the following GENERAL CONDITIONS, requirements and specifications, forming part of this contract.

This clause provides for identifying plans by the signatures of the parties, which represents good practice. In some cases, however, a simple

description of a plan may suffice and be more convenient. Reference to the General Conditions which follow, seems necessary; as also reference to the Specifications that, for railroad work of various sorts, can best be arranged in a separate document " which forms part of the Contract."

The work covered by this contract shall be commenced..... ..... and be completed on or before the ....day of .....191.... time being of the essence of this contract.

Many Contracts fail to use the words, " time being of the essence of the Contract," or words of similar purport. This clause seems wise in case provision is made either for " liquidated damages " or damages otherwise determined, if the work is not completed at the time specified. It is equally desirable wherever clauses are introduced providing that the Commission may take the work from the Contractor, or take other special measures in case the Contractor fails to conduct the work in an expeditious manner. Along this line the New York Water Supply Contract provides:

A. The time in which the various portions and the whole of this Contract are to be performed and the work is to be completed is of the essence of this agreement.

The blank lines in the Uniform Contract Form allow a provision to be introduced dealing with damages for failure to complete the work within the time specified, which is a suitable provision in many Contracts but not in all.

A discussion of penalty and liquidated damages and of forms used in specifying the latter, may be found in the next chapter.

And in consideration of the completion of the work described herein, and the fulfillment of all stipulations of this agreement to the satisfaction and acceptance of the Chief Engineer of the Company, the said Company shall pay, or cause to be paid, to said Contractor, the amount due to the Contractor, based on the following prices:

Other readings are:

A. It is further agreed that the following prices shall be paid by the Commonwealth and received by the Contractor as full compensation.

B. The City agrees to pay and the Contractor agrees to receive the prices specified in the proposal submitted by him . . . . which said prices are as follows to wit:

C. The Commission shall pay and the Contractor shall be compensated in full for everything furnished and done by him under this contract and for well and

faithfully completing the work and the whole thereof upon the basis of the several prices set forth and provided in the following items herein:

D. The City will pay and the Contractor shall receive:

E. It is agreed that the Commonwealth shall pay and that the Contractor shall receive:

F. The Contractor agrees to construct the part hereinafter described of a Rapid Transit Railroad, with its appurtenances. The City agrees to pay the Contractor the sums of money hereinafter mentioned at the times and in the manner and upon the terms and conditions hereinafter set forth.

The direct reading that the "City shall pay and the Contractor shall receive" seems desirable; this is a positive agreement by each party to one of the most important provisions of the Contract.

Many Contracts add to this, clauses of the following character:

G. As full compensation for furnishing all the materials called for, not found in the work, and for all labor and use of tools and other implements necessary for executing the work contemplated in this contract; also for all loss or damage arising out of the nature of the work, or from the action of the elements, or from any unforeseen obstructions or difficulties which may be encountered in the prosecution of the work, and for all reasons of every description connected therewith; also for all expense incurred by and in consequence of the suspension of discontinuance of said work as herein specified and for well and faithfully completing the work, and the whole thereof, according to the plans and specifications and requirements of the Engineer under them, which said prices are as follows to wit:

A large part of this seems to be legal verbiage and much of it may be provided for elsewhere in the Contract, as appears to be done in the Uniform Contract Form. It appears to be unnecessary here.

The following reading is suggested:

H. The Company will pay and the Contractor will receive as full compensation for the completion of the work described herein and the fulfilment of all stipulations of this agreement to the satisfaction and acceptance of the Chief Engineer of the Company, the amount found by the Chief Engineer to be due the Contractor, based on the following prices:

Monthly payments are provided for in Section 36.

A provision is frequently added after the schedule of quantities stating that they are approximate. Such a provision is usually introduced also in the Proposal. It seems desirable that the Contract should contain such a provision, and forms for this purpose are discussed in the next chapter.

GENERAL CONDITIONS

1. BOND. The Contractor shall, at the time of the execution and delivery of this contract and before the taking effect of the same in other respects, furnish and deliver to the Company a written bond of indemnity to the amount of ..... dollars, in form and substance and with surety thereon satisfactory and acceptable to the Company, to insure the faithful performance by the Contractor of all the covenants and agreements on the part of the Contractor contained in this contract.

This bond shall remain in force and effect for the full amount or such smaller amount as may at any time be specified by the Chief Engineer.

The provision that a Bond shall be furnished seems at first not to be appropriate as a part of the Contract itself; this is perhaps true where a Proposal form is used which provides for furnishing a Bond and for the forfeiture of the certified check in case the Contractor fails to sign the Contract and furnish a satisfactory Bond.

Nevertheless the Bond refers to a Contract, and in some forms (as in the Uniform Contract Form) it recites the date of the Contract to more fully identify it. Strictly, the Contract must be executed before the Bond; otherwise there is no Contract whose performance the Bond guarantees. It becomes then a suitable provision that " The Contractor agrees at the time of the execution and delivery of this contract, and before the taking effect of the same ' in other respects,' to furnish," etc. By the use of the words, " in other respects," there remains an agreement, namely to furnish the Bond, and a failure to do so would justify a suit for damages for breach of Contract. For the agreement to furnish the Bond there is ample consideration, because as soon as the Bond is furnished, the Company is at once held to the performance of its part of the Contract.

In some cases the Bond cannot conveniently be furnished at the time and place of signing the Contract; in such cases the provision above appears necessary.

An earlier reading was:

A. This bond shall remain in force and effect in such amount, not greater than that specified, as shall be determined by the Chief Engineer.

Very strictly considered, under the last mentioned reading, the failure of a Chief Engineer to specify any amount (a case of neglect, or a failure to appreciate the necessity for such action) would make the Bond unenforceable. It is doubtful, however, if a court would so construe it. The reading as changed, avoids misunderstanding.

It has been suggested also that there be added, " for such time as may be specified by the Chief Engineer," with the purpose of having the Bond

released as soon as its protection is no longer required. It is probably true that anything gained in this way by reducing the fees paid to the surety company, while primarily a gain to the Contractor, will in the long run be secured to the Company.

Workmen, however, and perhaps material men have a mechanic's lien for perhaps three months after the completion of the Contract, and a suit for damages for injury to person or property may be possible for a much longer time, and the protection of the Bond ought to cover either of these contingencies. Unless a time limit is distinctly specified, the Bond would doubtless be effective even after the completion of the physical parts of the Contract, if properly drawn. It is the common custom now that surety company's fees are based on the Contract price and without a time limit, and in such case there will be no saving in fees by limiting the time during which the Bond remains in force.

A much more elaborate provision is the following:

B. Simultaneously with the execution of this contract the Contractor shall give security for the performance of his obligation by filing with the Comptroller a bond in the form annexed hereto, entitled "FORM OF CONTRACTOR'S BOND," executed by the Contractor and by two or more sureties to be corporations or persons approved by the Commission in the sum of One Hundred Thousand Dollars ($100,000). In case any of the sureties upon the bond shall become insolvent or unable in the opinion of the Commission to pay promptly the amount of such bond to the extent to which such surety might be liable, then the Contractor within ten (10) days after notice by the Commission to the Contractor shall, by supplemental bond or otherwise, substitute another and sufficient surety to be approved by the Commission in place of the surety so insolvent or unable. If the Contractor shall fail, within such ten days or such further time, if any, as the Commission may grant, to substitute another and sufficient surety, then the Contractor shall, for all the purposes of this contract, be deemed to be in default in the performance of his obligations hereunder and upon the said bond, and the Commission may terminate this contract or may bring any proper suit or proceeding against the Contractor and the sureties, or either of them, or may require to be deducted from any moneys then in, or thereafter coming into, the hands of the City and due to the Contractor the amount for which the surety insolvent or unable as aforesaid shall have justified on the bond; and the moneys so deducted shall be held by the Comptroller as collateral security for the performance of the condition of the bond.

The important differences are the provision for new sureties in case the original sureties shall become insolvent, and the required inclusion of the Contractor as one of the parties signing the bond. The form is unusual and not regarded favorably by Contractors. Proper sureties should be secured in the first place.

The Public Service Commission of New York also adds a provision by which the Contractor:

C. may at his option deposit..... an equal amount of cash or in value of securities.

The well-to-do Contractor who owns securities may thus avoid the payment of surety company's fees and may, if he sees fit, give to the City some benefit by a bid lower than would otherwise be made.

A form used in another City reads:

D. The Contractor shall give to the City, and maintain in force during the continuance of this contract, a surety bond, satisfactory to the City, in the sum of ..... dollars, executed by authorized surety, guaranty, or trust company or companies.

The word " maintain " seems to have some value, but limiting the time to " during the continuance of this contract " seems undesirable as does also a further provision to " save harmless the City against injuries to persons or property during the construction of said work, and until the same is accepted." Does the Bond save harmless the City until the work is accepted, or for " injuries to persons or property during construction and until the work is accepted? " The court will doubtless decide.

An alternate reading in Section 1, above, instead of " in form and substance and with surety thereon satisfactory " may be:

E. in the form on file with the Chief Engineer, and with surety thereon satisfactory, etc.

The latter form is better calculated to secure uniform treatment to all bidders.

The form of Bond is the subject of a later chapter.

2. CONTRACTOR'S UNDERSTANDING. It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way affect the work under this contract. No verbal agreement or conversation with any officer, agent or employe of the Company, either before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.

If, in some cases, the Contractor may have failed to satisfy himself on these points, his signing the Contract stops him from later making any claim of failure to understand conditions. The provision that no verbal agreements or conversation shall modify any terms or obligations is simply a reaffirmation of the principles of the Common Law. The statements of this clause here seem desirable, as the Contractor cannot

well fail to understand from them his status as to these matters under this Contract. Furthermore, it is hardly subject to the criticism made of more drastic provisions to be found in the chapter on Specifications. The word "oral" is preferable to "verbal."

There are other readings in use, but the above seems adequate.

A more extensive provision in use in Chicago is shown below:

A. All bidders for work under this contract are required, before submitting proposals, to examine the site of the work and adjacent premises, and the various means of approach to the site, and to make all necessary investigations in order to inform themselves thoroughly as to the character and magnitude of all work involved in the complete execution of this contract, also as to the facilities for delivering and for handling material and plant at the site and the conditions and the difficulties that will be encountered in the performance of the work specified herein. No plea of ignorance of conditions that exist, or that may hereafter exist, or of difficulties that may be encountered in the execution of the work hereunder, as a result of a failure to make the necessary examinations and investigations, will be accepted as a sufficient excuse for any failure or omission on the part of the Contractor to fulfill in every detail all of the requirements of this contract, or will be accepted as a basis for any claims whatsoever for extra compensation.

This provision is more commonly found in the Proposal and should occur there also, but it is well to have it within the body of the Contract, so that in case of a suit at law, the Contract shall cover the points involved without reference to an outside document. The provision in the Proposal may state that the bidder has also examined the Specifications, plans and drawings, which is hardly necessary here.

In some Contracts it is provided that:

B. The Information for Bidders hereto attached and the Proposal submitted by the Contractor are also made parts of this Contract.

It seems better to incorporate in the Contract such features from the Information for Bidders and from the Proposal as are necessary to a complete Contract.

3. INTENT OF PLANS AND SPECIFICATIONS. All work that may be called for in the specifications and not shown on the plans, or shown on the plans and not called for in the specifications, shall be executed and furnished by the Contractor as if described in both these ways; and should any work or material be required which is not denoted in the specifications or plans, either directly or indirectly, but which is nevertheless necessary for the proper carrying out of the intent thereof, the Contractor is to understand the same to be implied and required, and shall perform all such work and furnish any such material as fully as if they were particularly delineated or described.

This section seems very desirable. It calls attention to, and reaffirms the principle of law that a Contract or any writing is to be construed

with due regard to all its parts, none of which is to be neglected in determining the intent. It is also in some respects more explicit than the provision already cited that:

A. The Contractor shall furnish all materials, superintendence, labor, equipment, and transportation, except as hereinafter specified, and shall execute, construct and finish, in an expeditious, substantial, and workmanlike manner, to the satisfaction and acceptance of the Chief Engineer of the Company.

Together these provisions well cover the requirements in case there should be accidental omissions in any part and leave little opportunity for misunderstanding and the natural sequence, a lawsuit.

Other readings are:

B. The plans furnished form a part of these specifications, and any work shown thereon shall be executed the same as if mentioned herein. The work is to be made complete, and to the satisfaction of the Engineer, notwithstanding any minor omissions in the specifications or plans.

C. The plans and specifications are intended to be explanatory of each other, but should any discrepancy appear or any misunderstanding arise as to the import of anything contained in either, the explanation of the Chief Engineer shall be final and binding on the Contractor. Any correction of errors or omissions in drawings and specifications may be made by the Chief Engineer when such correction is necessary for the proper fulfilment of their intention as construed by him.

D. Said plans, specifications and contract are to be considered together, so that any work shown on the plans, though not mentioned in the contract, or vice versa, on any of the provisions of the contract not repeated in the plans, or vice versa, are to be executed by the Contractor as part of this contract. . . . All things which in the opinion of the Chief Engineer may fairly be inferred from the contract and plans are to be executed by the Contractor as part of the contract.

The words "fairly be inferred" follow good practice.

E. The work done and materials furnished shall be strictly pursuant to and in conformity with the specifications and plans, which plans are signed, hereto attached and made a part of this agreement. The said specifications and plans are intended to co-operate, and any work appearing upon the plans and not mentioned in the specifications or mentioned in the specifications and not appearing upon the plans, shall be executed according to the true intent and meaning of the said specifications and plans, the same as though the said work was contained and described in both.

F. The Engineer shall make all necessary explanations as to the meaning and intention of the specifications, shall give all orders and directions contemplated therein or thereby and in every case in which a difficult or unforeseen condition shall arise, in the performance of the work required by this contract.

G. It is expressly understood that the specifications do not include all requirements, but are requirements in addition to those heretofore or elsewhere given or

provided in this contract. The specifications and other provisions of this contract, and the contract drawings, are intended to be explanatory of each other. Should, however, any discrepancy appear or any misunderstanding arise as to the import of anything contained in either, the explanation of the Engineer shall be final and conclusive.

A provision of the following kind is sometimes used:

H. The matter contained in the Information for Bidders, in the Proposal and Bid, in the Specifications and in the contract drawings, are hereby incorporated in and made a part of this contract to the same extent as if they were herein written.

I. The Legal Notice, Instruction to Bidders, Proposal of the Bidder, and the Specifications, all of which are hereto attached, are hereby made a part of this agreement the same as if they were herein written; the drawings for the work to be done under this agreement, on file in the Department of Public Service, Office of the City Engineer, are also hereby incorporated in and made a part of this agreement.

Such a provision seems unnecessary if the Contract covers all requisite features included in these other documents. The Contract should be made complete in itself so far as possible.

An addition to the clauses already considered is in good use and is shown below:

J. All things which in the opinion of the Chief Engineer may fairly be inferred from the contract and plans are to be executed by the Contractor as a part of the contract; and the Chief Engineer shall be the sole judge as to whether the detail plans conform to the general plans and contract.

Both of these provisions may hold good, but the Courts are slow to allow their powers to be taken away so far as the interpretation of any writing is involved. Where the exercise of expert knowledge is required, the courts would probably support the provision that the Chief Engineer's expert judgment should prevail. The comments on Section 26 should be read to correctly appreciate this.

Another clause sometimes added is:

K. The work is to be made complete, and to the satisfaction of the Chief Engineer, notwithstanding any minor omissions in the specifications or plans.

4. PERMITS. Permits of a temporary nature necessary for the prosecution of the work shall be secured by the Contractor. Permits for permanent structures or permanent changes in existing facilities shall be secured by the Company.

This appears to be an unusual provision in a Contract, but it seems very desirable. The Contractor should secure permits necessary to him for carrying on the work; the Company should secure all lands, or rights of

way, or licenses necessary for the use of the work when completed. The distribution of duties is reasonable and proper.

It is provided in another Contract form:

A. The Contractor shall also procure and pay for all licenses or permits required in the prosecution of any part of the work embraced in this Contract.

This appears not to be so clear as Section 4, above quoted.

And in another:

B. The Contractor shall fully comply with all municipal ordinances and regulations, and obtain all required licenses and permits, and pay all charges and expenses connected therewith.

In many classes of work within a city, the requirements as to permits need to be well understood; they are sometimes many in number and some requirements may be very technical as to fulfilment. In the erection of buildings or in the building of sewers, the requirements of ordinances or rules of street or building departments must be complied with.

5. PROTECTION. Whenever the local conditions, laws or ordinances require, the Contractor shall furnish and maintain, at his own cost and expense, necessary passageways, guard fences and lights and such other facilities and means of protection as may be required.

This also seems specific and desirable although not found in most Contract forms. It differs materially from a provision to hold the Company harmless in case any damage or an injury is incurred; it is provision to guard against damage to any interests, or against violation of statutes or ordinances; it is in the nature of a preventive rather than a remedy. This involves compliance with Statute Law and with the particular requirements thereof; guard fences, lights, and various kinds of protection are, however, required by the Common Law, to escape a charge of negligence. Under ordinances, etc., however, the specific requirements or regulations must be observed as laid down by any public authority.

The following clauses are taken from existing Contract forms:

A. The Contractor shall take whatever precautions may be necessary to render any portion of the work secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work.

B. The Contractor shall furnish and maintain, subject to the approval of the Engineer, all barricades and other protections, lights and signs, necessary for the proper protection of the public. He shall also furnish the services of watchmen. The cost of all the above shall be covered by the amounts paid at the rates and prices herein specified, and no extra charge will be made therefor.

C. The trench and work shall be properly lighted at night by the Contractor, who shall provide at his own expense watchmen, lights, etc., and take such precautions generally as may be necessary to prevent accidents and to protect life and property.

6. RIGHTS OF VARIOUS INTERESTS. Wherever work being done by Company forces or by other contractors is contiguous to work covered by this contract, the respective rights of the various interests involved shall be established by the Engineer, to secure the completion of the various portions of the work in general harmony.

Attention should be called here to Section 24 which defines Chief Engineer and Engineer. It is here provided that the Engineer on the ground shall settle this matter, which is the proper arrangement. Appeal to the Chief Engineer is, or may be, provided for.

In many classes of Contract work, there will be no opportunity for conflict of rights and this section may then be omitted. In railroad work and in the construction of buildings this will often be a necessary provision.

Other forms are:

A. The other Contractors of the Commission may also, for all the purposes which may be required by their contracts or work, enter upon the work and premises used by the Contractor. Any differences or conflicts which may arise between the Contractor and other contractors of the Commission in regard to their work shall be adjusted and determined by the Engineer.

B. On the division line of contiguous contract sections, the Engineer will decide any matters in the details of construction within a limit of seventy-five feet on either side of the line where the work of contractors may be in conflict, and direct which of the contractors shall complete the details of construction within such limits.

C. During the progress of the work it will be necessary for other contractors and persons to do work in or about the construction or equipment of the Railroad. The Contractor shall afford to such other contractors or persons such facilities as the Engineer may require.

Any difference or conflicts which may arise between the Contractor and other contractors of the Commission in connection with the construction of the Railroad or otherwise in connection with the equipment of the Railroad in regard to the progress of, or the facilities afforded with respect to, their work shall be adjusted and determined by the Engineer.

The provisions of Section 6 ought to be of interest to Architects. In constructing a house, plumbing, heating, wiring, and various classes of work are often done under separate Contracts.

7. CONSENT TO TRANSFER. The Contractor shall not let or transfer this contract or any part thereof (except for the delivery of material) without

consent of the Chief Engineer, given in writing. Such consent does not release or relieve the Contractor from any of his obligations and liabilities under the contract.

Other readings in whole or in part are:

A. The Contractor shall not sub-let or assign, by power of attorney or otherwise, any part or the whole of the work embraced in this contract, without the approval of the Commission.

B. The Contractor shall give his personal attention constantly to the faithful prosecution of the work, and shall not assign, sublet, or transfer, to any person or persons, this contract or any of the work hereby agreed to be performed, or any of the moneys falling due or to become due under this contract; and shall not issue any orders or drafts on the City for any moneys due or to grow due under this contract, unless by and with the consent of the Board, first duly had by resolution and entered upon the minutes of the Board, and agrees that no person other than the party signing this agreement as Contractor shall have any claim thereunder.

C. The Contractor shall give his personal attention constantly to the faithful prosecution of the work, shall keep the same under his personal control, and shall not assign by power of attorney, or otherwise, nor sublet the work, or any part thereof, without the previous written consent of the Commission, and shall not, either legally or equitably, assign any of the moneys payable under this agreement, or his claim thereto, unless with the like consent of the Commission.

D. Unless by the previous consent of the Board, to be signified by indorsement on this agreement.

E. No part of this work shall be sublet except to parties skilled in and properly equipped for the same and satisfactory to the Board.

F. The Contractor shall give his personal attention constantly to the faithful prosecution of the work, and shall be present, either in person or by a duly authorized representative, on the site of the work, continually during its progress to receive direction or instructions from the Engineer; he shall not assign, transfer, convey, sublet or otherwise dispose of this contract, or his right, title or interest in or to the same or any part thereof, without the previous consent in writing of the Board indorsed herein or hereto attached; and he shall not assign by power of attorney or otherwise any of the moneys to become due or payable under this contract unless by and with the like consent signified in like manner. If the contractor shall without such previous written consent, assign, . . . this contract may at the option of the Board, be revoked and annulled, and the City shall thereupon be relieved and discharged from any liability and obligations growing out of the same to the contractor.

G. If the Contractor shall cause any part of this contract to be performed by a sub-contractor, the provisions of this contract shall apply to such sub-contractor and his officers, agents and employees in all respects, as if he and they were employees of the Contractor; and the Contractor shall not be in any manner thereby discharged from his obligations and liabilities hereunder, but shall be liable hereunder for all acts and negligence of the sub-contractor, his officers,

agents and employees as if they were employees of the Contractor. The employees of the sub-contractor shall be subject to the same provisions hereof as employees of the Contractor; and the work or materials furnished by the sub-contractor shall be subject to the provisions hereof, as if furnished directly by the Contractor.

H. **No part of this work shall be sublet except to parties skilled in and properly equipped for the same and assented to in writing by the Board before such part of the work is begun.**

Most Contracts forbid subletting. A large proportion of such Contracts are sublet in part or in whole without the consent of the other party. Under such circumstances, the legal effect of such a provision forbidding subletting is that the sub-contractor acquires no legal rights under the sub-contract or assignment, is not recognized, and has no standing with the Company, City, or Board; he is treated as a foreman, the Contractor proper being the only recognized responsible party.

It is important, however, that there should be no official recognition of the sub-contractor by the Chief Engineer in any way. Furnishing estimates of the work done by the sub-contractor has been held to be a recognition which amounted to a waiver of the condition; the Chief Engineer or other person of the Board whose written consent is specified must be a party to the recognition.

If the Engineer, without the knowledge of the Chief Engineer, should furnish such an estimate, or otherwise recognize the sub-contractor, this could hardly operate as a waiver; the Engineer's authority would not reach that far.

No harm results in most classes of work if there is an informal subletting. In a small proportion of Contract work, there is necessity for the personal attention, constantly, of a Contractor specially skilled in that work, and in this case a drastic provision should have place in the Contract, calling for the annulment of the contract for violation of this provision. For most Contracts, Section 7, above, seems sufficient, and free from undue verbiage. When written consent is required, the Chief Engineer seems the proper representative of a railroad Company; in other cases the Commission or Board; in the case of a City, in general the officer or Board which signs the Contract in behalf of the City.

8. SUPERINTENDENCE. The Contractor shall constantly superintend all the work embraced in this contract, in person or by a duly authorized manager acceptable to the Company.

This section seems properly put here. Many Contractors nowadays are carrying on work in many places, and much in the way of direct personal attention is not to be expected, especially if competent "man-

agers " are employed; if not expected, it ought not to be asked for in the Contract. In the small proportion of cases where the personal element is essential, the clause may well read:

A. This contract specially demands the constant attention of the Contractor in person in addition to such other superintendents and foremen as the work may demand.

Under comments on Section 7, are other readings which cover this feature.

The two clauses following are also in point here:

B. The Contractor shall be responsible for the entire work until completed and accepted by the Board. The Contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He shall keep the entire work under his control, and shall not sublet all or any part of it.

The Contractor shall at all times have a competent foreman, superintendent or other representative on the work, who shall have authority to receive and execute orders from the Engineer, who shall receive shipments of material to the Contractor, and who shall see that the work is executed in accordance with the specifications and plans and the orders of the Engineer thereunder. The Contractor shall see that the different parts of the work are brought together in harmony and he shall coöperate with other contractors and with the Engineer as to the proper conduct of the work.

Other readings are:

C. The Contractor shall give his personal attention constantly to the faithful prosecution of the work and shall be present, either in person or by a duly authorized representative, on the site of the work, continually during its progress, to receive directions or instructions from the Engineer. He shall maintain an office on the site of the work, where copies of the contract and of all working drawings shall be kept ready at any time.

The last clause would be inappropriate in many small Contracts.

D. During the performance of any work on the premises or public streets of the City, the Contractor shall keep on the ground an experienced representative or superintendent, duly authorized to represent and act for the Contractor in all matters pertaining to the work to be done under this contract.

When it is found necessary to give directions during the absence of the Contractor at any time during the progress of the work herein specified, orders given by the Commissioner shall be received and obeyed by the foreman or superintendent having charge of the work about which orders or directions are given.

E. The Contractor must have on the work at all times a foreman, superintendent, or other competent representative, to whom orders and instructions may be given, his name to be certified by the Contractor to the Engineer. Any orders given such foreman, superintendent or representative shall have the same force and effect as if given directly to the Contractor.

F. The Contractor shall have a representative on the work at all times who shall have authority to act upon the orders or the directions of the Engineer.

G. The Contractor shall employ suitable superintendents and foremen who shall be present while any work is being done under this contract.

The reading given in Section 8 above, is concise and to the point.

9. TIMELY DEMAND FOR POINTS AND INSTRUCTIONS. The Contractor shall provide reasonable and necessary opportunities and facilities for setting points and making measurements. He shall not proceed until he has made timely demand upon the Engineer for, and has received from him, such points and instructions as may be necessary as the work progresses. The work shall be done in strict conformity with such points and instructions.

This section, while it appears not to be in common use in other Contract forms, seems very much to the point. It does appear to be covered in most part in the following:

A. All lines and grades will be given by the Engineer, but the Contractor shall provide such materials and give such assistance as may be required by the Engineer, and the marks given shall be preserved. The Contractor shall keep the Engineer informed a reasonable time in advance, of the times and places at which he intends to work, in order that lines and grades may be furnished and necessary measurements for record and payment may be made with the minimum of inconvenience to the Engineer or of delay to the Contractor.

There is some question whether the Contractor should be required to furnish stakes and labor to assist the Engineer in staking out the work. It is not properly the Contractor's business to do so.

The following clause covers some of the requisite features as to lines and grades:

B. All work provided for under this contract shall be done under the direction and supervision of the Engineer and his properly authorized agents. The Contractor shall be guided by all lines, stakes, marks and grades given by them, and shall carefully preserve the same as far as possible during the progress of the work, and shall furnish all needed facilities without extra charge therefor, to enable the Engineer to properly give any required lines and grades and measure the work from time to time.

The two provisions following are parts of one Contract:

C. During the progress of the work the Commission will give, through the Engineer, to the Contractor, suitable points, marks or benches, indicating the line and grade of the Railroad and of the sewers; such points or bench marks to be established at such intervals as the Engineer deems necessary for the Contractor to be able to perform his work. The principal lines and grades are to be given by the Engineer, who may change them from time to time as may be authorized and directed by the Commission. The stakes and marks given by the Engineer

shall be carefully preserved by the Contractor, who shall give to the Engineer all necessary assistance and facilities for establishing benches and plugs and for making measurements.

D. Before commencing work on any part of the route, the Contractor shall give notice in writing to the Engineer at least one (1) week in advance of his intention to commence such operation; and before commencing manufacture, or resuming manufacture, if the same has been suspended, of any article called for by these specifications, notice shall be given to the Engineer in writing at least one (1) week in advance, with the name and address of the maker and the amount and description of the material to be manufactured.

One Contract form provides:

E. No special compensation shall be made for the cost to the Contractor of any of the work or delay occasioned by giving lines and grades, or making other necessary measurements, or by inspection; but compensation shall be considered to have been included in the prices stipulated for the appropriate items.

This makes the matter very clear but is probably unnecessary; it apparently is sufficiently covered by Section 3. Some Engineers may nevertheless prefer to include it. The delay referred to is the necessary interference to work while giving lines and grades. There should be no delay to the Contractor in waiting for lines and grades. The Contractor has a moral right to every reasonable facility to allow his doing the work in the most advantageous manner.

10. REPORT ERRORS AND DISCREPANCIES. If the Contractor, in the course of the work, finds any discrepancy between the plans and the physical conditions of the locality; or any errors on plans or in the layout as given by said points and instructions, it shall be his duty to immediately inform the Engineer, in writing, and the Engineer shall promptly verify the same. Any work done after such discovery, until authorized, will be done at the Contractor's risk.

This does not say that, if there is any discrepancy, the Contractor must find it; it says if he finds any discrepancy. This demands of the Contractor that he shall work with the Company for the best conduct of the work. As a matter of evidence, it might be difficult to provide that a Contractor did find any discrepancy, unless it was also known to the Engineer or some of his subordinates. Nevertheless in some cases evidence would be available and this section seems worth while. The implication is that work done before notice of error is not at the Contractor's risk, which is right and proper.

The wording in one case is this:

A. The Contractor shall promptly report to the Engineer, in writing, any discrepancy or error which he may discover in the plans, drawings, specifications or contract.

Other forms are:

B. Any correction or errors or omissions in plans and specifications may be made by the Chief Engineer when such correction is necessary for the proper fulfilment of their intention as construed by him.

Possibly the two clauses following belong with Section 3 rather than here.

C. The Contractor is required to check all dimensions and quantities on the drawings or schedules given to him by the Engineer, and shall notify the Engineer of all errors therein which he may discover by such examination and checking. He will not be allowed to take advantage of any error or omission in these specifications, as full instructions will be furnished by the Engineer should such error or omission be discovered, and the Contractor shall carry out such instructions as if originally specified.

D. The aforesaid plans, and the surveys with the calculations based thereon, are believed to be correct; but the Contractor must examine for himself, as no allowance will be made for any errors or inaccuracies which may be found therein, and the Commonwealth does not guarantee them to be even approximately correct.

It seems to be unfair to the Contractor to require him to stand responsible for errors made by the Engineer's draftsmen; the Contractor ordinarily has no special facilities for verification. In the case of bridge or other structural plans, the Bridge Company has unusual facilities to do checking and the clause in this case seems defensible and probably wise. It may be proper in other specific cases; for the general run of Contracts, it is not fair to the Contractor.

The following provision is along the same general lines and seems reasonable. The Engineer who finds his own errors has here authority to correct them, and evidently under this provision the Contractor is not to be held responsible for work done before the errors are discovered and corrected.

E. The Engineer shall have the right to correct any errors or omissions in the contract or specifications when such corrections are necessary for the proper fulfilment of their intention. The action of such corrections shall date from the time that the Engineer gives due notice thereof, and any alterations in the work, rendered necessary thereby, shall be made as directed.

11. PRESERVATION OF STAKES. The Contractor must carefully preserve bench marks, reference points and stakes, and in case of wilful or careless destruction, he will be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

This seems an excellent provision, although omitted in many Contract forms. Several forms of provision as to this have been given in the comments upon Section 9.

Sections 12 and 13 may well be considered together.

12. INSPECTION. All work and material shall be at all times open to the inspection, acceptance, or rejection of the Engineer or his duly authorized representative. The Contractor shall give the Engineer reasonable notice of starting any new work and shall provide reasonable and necessary facilities for inspection, even to the extent of taking out portions of finished work; in case the work is found satisfactory, the cost of taking out and replacement will be paid by the Company. No work shall be done at night without the previous approval of the Engineer.

13. DEFECTIVE WORK OR MATERIAL. Any omission or failure on the part of the Engineer to disapprove or reject any work or material shall not be construed to be an acceptance of any defective work or material. The Contractor shall remove, at his own expense, any work or material condemned by the Engineer, and shall rebuild and replace the same without extra charge, and in default thereof the same may be done by the Company at the Contractor's expense, or, in case the Chief Engineer should not consider the defect of sufficient importance to require the Contractor to rebuild or replace any imperfect work or material, he shall have power, and is hereby authorized, to make an equitable deduction from the stipulated price.

The features of special importance in Section 12 are the requirements of notice to the Engineer before starting any new work, of his approval of night work, and the statement that work may be taken out for purposes of inspection.

The unusual feature of Section 13 is the authority to make a deduction from the stipulated price in the case of defective work not sufficiently bad to require removal and renewal. If properly carried out, this provision will operate to the advantage of the Contractor. The work of a well intentioned Contractor will sometimes fall below standard, and it is not always necessary to discipline him to the extent of requiring removal of work.

The question may arise as to what is an equitable deduction. One answer might be, "the damage resulting." If the structure or work answers the purpose, is there appreciable damage? Another answer is, "the difference in cost, or price, or value, between the work as executed and as specified." The latter is the more suitable answer. In public work, the acceptance of work below standard at full price is unfair to other bidders and in its essence illegal. It also substantially puts a premium on doing imperfect work. It opens the way to graft, and it doubtless is a means by which graft is often practiced. There seems no reason why the provision above should not be workable practically.

The clause that "any omission or failure on the part of the Engineer to disapprove or reject any work or material shall not be construed to be

an acceptance of any defective work or material" seems somewhat severe upon the Contractor. The courts can be expected to sustain it and there is an evident disposition to include such a clause in Contracts. The following quotations in various forms, indicate that this disposition is clearly a fact:

A. Any omission to disapprove the work at the time or inspection or at the time of any monthly or other estimate shall not relieve the Contractor of any of his obligations.

B. It is further agreed that the approval of the said Engineer or his assistants, of all or any of the work during its construction, shall not relieve the Contractor from the full responsibility of building and furnishing the work required by the condition of this agreement, and it is understood that no advantage shall be taken of any discrepancy that may be found in any drawing or specification.

C. If the inspector should be absent or negligent, or should consent to the allowance of inferior work, the Contractor will not thereby be excused from repairing the work and removing faulty materials at his own cost. The Contractor shall at all times furnish the Engineer reasonable notice for the purpose of inspecting the materials furnished and the work done under this agreement.

D. The inspection of the work shall not relieve the Contractor of any of his obligations to fulfill his contract as herein prescribed, and defective work shall be made good, and unsuitable materials may be rejected, notwithstanding that such work and materials have been previously overlooked by the City and accepted or estimated for payment. If the work, or any part thereof, shall be found defective before the final acceptance of the whole work the Contractor shall forthwith make good such defect without compensation, in a manner satisfactory to the City, and if any materials brought upon the ground for use in the work, or selected for same, shall be condemned by the City as unsuitable or not in conformity with the specifications, the Contractor shall forthwith discard such materials and remove them to a satisfactory distance from the work. If the Contractor shall fail to replace any defective work or materials after reasonable notice, the City may cause such defective work or materials to be replaced, and the expense thereof shall be deducted from the amount to be paid the Contractor.

E. It is further expressly agreed that the granting of any progress certificate, or the payment of any moneys hereunder, shall not be considered an acceptance of all or of any part of the work and shall in no way lessen the liability of the Contractor to replace defective work though the same may not have been detected at the time such certificate was given or acted upon. All progress certificates being made merely upon approximate estimates, shall be subject to the correction of the final certificate.

So far as renewal at a later date involves no greater expense than at the time of inspection there is no injustice to the Contractor involved in requiring the replacing of defective work, or work below Contract requirements. If, however, the quality, or compliance with the Speci-

fications is in some doubt, and the inspector or Engineer accepts or approves, and additional work is then performed, based upon the accepted work, it becomes a hardship and an injustice to the Contractor if the additional work must be taken out and renewed, unless, in some way, bad faith is involved.

The remedy or way out is not altogether clear. In the rare cases where there has been collusion between the Contractor and inspector or perhaps where either an over-zealous Contractor or his foreman has deliberately taken advantage of the inexperience or inefficiency of an inspector, no mercy should be shown. Where, however, the work has been allowed to stand without substantial fault, and without moral obliquity on the Contractor's part, he should in some way be protected, and many Engineers will find some way to protect him. The clause above, allowing "an equitable reduction," is one method available and is open and above board. Beyond this, however, the Contractor must appreciate the possible disadvantage to him in this clause, and must make his bid large enough to cover the risk in this particular. The Engineer should clearly realize that the Contractor may make his bid large on this account, and determine the advisability of including such a clause.

The state of the law applied to this may be gathered from the fact that in New York the courts sustained a Contract provision that the Contractor should be bound by the decision of the Chief Engineer while the City should not be bound. The court seemed to think that a large municipality could not count on the same zeal from its employees that the Contractor could and that this extraordinary protective provision ought to be sustained.

The provision so sustained was much the same as that shown below:

F. The City shall not, nor shall any Department or officer thereof, be precluded or estopped by any return or certificate made or given by the Commission, any Engineer, or other officer, agent or appointee thereof under any provision of this contract, from at any time either before or after the final completion and acceptance of the work and payment therefor pursuant to any such return or certificate, showing the true and correct classification, amount, quality and character of the work done and materials furnished by the Contractor or any other person under this contract, or from showing at any time that any such return or certificate is untrue and incorrect or improperly made in any particular, or that the work and materials, or any part thereof, do not in fact conform to the specifications; and the City shall not be precluded or estopped, notwithstanding any such return or certificate and payment in accordance therewith, from demanding and recovering from the Contractor such damages as it may sustain by reason of his failure to comply with this contract or the specifications.

Touching other provisions in these sections, among the forms used to cover them is the following:

G. The Commission and every member of it, the Engineer, and the employees of the Commission and Engineer, shall at all times have the right to enter the premises upon which work is being done under this contract, to inspect the said work and materials, and to ascertain whether or not the construction is carried on in accordance with this contract, and the Contractor shall furnish all reasonable facilities therefore, and, when the conditions reasonably require notification of the Engineer, shall give him due notice and ample time for inspection.

The following is a similar provision:

H. The Board and its engineers, inspectors, agents and other employees, shall for any purpose, and other parties who may enter into contracts with the Board for doing work within the territory covered by this contract, shall, for all purposes which may be required by their Contracts, have access to the work and the premises used by the Contractor, and the Contractor shall provide safe and proper facilities therefor. Furthermore, the Board and its engineers, inspectors, and agents shall, at all times, have immediate access to all places of manufacture where materials are being made for use under this contract, and shall have full facilities for determining that all such materials are being made strictly in accordance with the specifications and drawings.

This certainly seems to include more than a Contractor ought to be called upon to agree to. The bookkeeper, and even the janitor, would seem to be able to assume rights (unauthorized perhaps) which the Contractor could not dispute.

Another Contract form reads:

I. The Contractor shall permit the Engineer and his assistants and persons designated by him or them, and other representatives of the Board, to enter upon the work at all times and places, and to give lines and grades, and to measure and inspect the work or materials, and shall provide safe and proper facilities therefor and such samples as may be required.

This is less subject to criticism than the previous reading, but has no apparent advantage over the more concise reading of Section 12, above.

J. The Contractor shall at all times give to the Commission and its members, to the Engineer and his assistants and subordinates, and any person designated by the Commission or its Chairman, all facilities, whether necessary or convenient, for inspecting the materials to be furnished and the work to be done under this contract. The members of the Commission, the Engineer and all employees of the Commission bearing his authorization or the authorization of the Commission or its Chairman, shall be admitted at any time summarily and without delay to any part of the work or to inspection of materials at any place or stage of their manufacture, preparation, shipment or delivery.

K. The Contractor shall furnish the Engineer with every facility for ascertaining whether the work is in accordance with the requirements and intentions of this contract, even to the extent of uncovering or taking down portions of finished work. Should the work thus exposed or examined prove satisfactory, the un-

covering or taking down and the replacing of the covering or the making good of the parts removed will be paid for at the contract prices for the class of work done; but should the work exposed or examined prove unsatisfactory, such uncovering, taking down, replacing and making good shall be at the expense of the Contractor.

L. All materials of whatsoever kind to be used in the work shall be subject to the inspection and approval of the Engineer and shall be subject to constant inspection before acceptance. Any unfaithful or imperfect work that may be discovered before its final acceptance shall be corrected immediately and any unsatisfactory materials used in the work will be rejected and shall be removed on the requirement of the Engineer. The inspection of any work shall not relieve the Contractor of any of his obligations to perform proper and satisfactory work, as herein specified, and all work which, during the progress and before its final acceptance, may become damaged from any cause, shall be removed and replaced by good and satisfactory work, without extra charge therefor. The Engineer and his assistants shall have at all times free access to all points where material to be used in the work is manufactured, procured or stored, and shall be allowed to examine any material furnished for use in the work under this contract.

M. The Contractor is required to afford the Commissioner, or his authorized representative, including engineers, inspectors or any other help that said Commissioner may designate, all proper assistance and facilities for the proper inspection of the methods employed in constructing the work, and of the character of the material delivered or used in the work.

The Contractor shall furnish all necessary facilities to enable the Commissioner or his authorized representative to make an examination of any work already completed. If the work is found defective in any respect the Contractor shall defray the expense of such examination and of satisfactory reconstruction. If the work is found satisfactory and according to specifications such expense will be allowed by the City.

N. Whenever the Contractor shall be permitted or directed to perform work at night or on Sundays or holidays, or to vary the period of hours during which work is carried on each day, he shall give written notice to the Engineer, so that proper inspection may be provided. Such work shall be done under the regulations to be furnished in writing by the Engineer and no extra compensation shall be allowed therefor.

The following is in point also, although it refers in part to shop inspection:

O. No material of any kind may be used or any work done until it has been inspected and accepted by the City. The Contractor must furnish all labor necessary in handling such material for inspection. All materials rejected must be promptly removed from the vicinity of the work. Materials or workmanship found at any time to be defective shall be promptly replaced or remedied by the Contractor, regardless of previous inspection.

The Engineer, his assistants and agents, together with other parties who may enter into contracts with the City for doing work within the territory covered by this contract, shall, for all purposes which may be required by their contracts, have

access to the work and premises used by the Contractor, and the Contractor shall provide safe and proper facilities therefor. Furthermore, the Engineer, his assistants and agents shall at all times have immediate access to all places of manufacture where materials are being made for use under this contract, and shall have full facilities for inspecting the same.

The field inspection of the work, testing of materials, giving of lines and grades, preparation of general and detail drawings, together with the preparation of partial and final estimates, will be done by the Engineer. The inspection and supervision by the Engineer is intended to aid the Contractor in supplying all material and in doing all work in accordance with drawings and specifications, but such inspection shall not operate to release him from any of his contract obligations.

P. The Contractor shall notify the Engineer, at a reasonable time in advance, of the starting of any new class of work. In case any work is to be done at night, the contractor shall give due notice to the Engineer, at least two days before such work is started. Only such classes of work shall be done at night as can be properly inspected, and adequate light and facilities for inspection shall be supplied.

Another reading is:

Q. Any unfaithful or imperfect work or materials that may be discovered before the final acceptance of the work shall be corrected or replaced immediately, on the requirement of the Engineer, notwithstanding it may have been overlooked by the proper inspector and estimated. The Engineer may drill into or cut open the masonry lining of the tunnel and for this purpose the Contractor shall furnish all necessary tools and labor. If the work so examined is found defective in any respect, it shall at once be remedied by taking down and rebuilding the defective work, or in such manner as the Engineer may direct, and the Contractor shall receive no compensation therefor; but if defects are not found there, examination and reconstruction shall be paid for as extra work, as provided in this contract.

R. Any omission to disapprove the work at the time of inspection or at the time of any monthly or other estimate shall not relieve the Contractor of any of his obligations; and all work of whatever kind, which, during its progress and before it is finally accepted, may become damaged from any cause, shall be removed and replaced by good and satisfactory work.

These clauses for the removal of rejected material are in use:

S. Materials of whatever kind condemned by the Engineer or inspector shall be removed from the work herewith, and shall not be made use of elsewhere in the work.

T. Any material found defective and failing to satisfy the requirements of these specifications shall be rejected, and the contractor shall be so notified by the inspector; the material so rejected shall not be used on the work, and, upon written notice from the Commissioner, the Contractor shall at once remove said material from the work and from the premises of the City.

U. Any material and work which does not satisfy the requirements of these

specifications may be rejected by the Commissioner at any time before the final acceptance of the work, and the Contractor shall make good all deficiencies at his own expense.

V. If any material brought upon the ground for use in the work, or selected for the same, shall be condemned by the Engineer as unsuitable or not in conformity with the specifications, the Contractor shall forthwith remove such materials as may be directed by the Engineer.

The following form, already in use, is suggested as well meeting the requirements:

W. Any materials condemned or rejected by the Engineer or his representatives may be branded or otherwise marked, and shall, on demand, be at once removed to a satisfactory distance from the work.

14. INSURANCE. The Contractor shall secure, in the name of the Company, policies of fire insurance in amount, form and companies, satisfactory to the Chief Engineer, upon such structures and material as shall be specified by the latter, payable to the Company for the benefit of the Contractor or the Company as the Chief Engineer shall find their interests to appear.

Most Contracts provide, as in Section 19 following, that the Contractor shall turn over to the Company or Owner a completed structure. Any misfortune which injures or destroys the partially completed structure is a misfortune to the Contractor, whether it be due to fire, water, or other untoward circumstance, or even to the "act of God." The risk is the Contractor's and apparently the insurance money should go to him; certainly if no monthly payment has been made to the Contractor, and apparently in other cases, especially if he be honest and solvent. If, however, the Company or Owner has paid in monthly estimates a total amount in excess of the Bond, some protection is then needed for the Owner and the insurance money if received by the Company should be applied to reduce or cancel the amount paid by the Company in monthly or other advance or partial payments to the Contractor.

The Standard Contract Form of the American Institute of Architects provides that the Owner shall furnish the insurance. The full text may be found in the chapter on Additional Contract Forms.

It seems best, on the whole, that for most engineering work the responsibility should rest on the Contractor to determine how much insurance he desires to carry. If the Owner secures the insurance it is not quite certain that the Contractor will be satisfied. Up to a certain point the Company does not care whether he insures or not, or how much he carries. When that point has been passed, the Contractor must insure to an amount satisfactory to the Chief Engineer. In Contracts for buildings only, unless they are fireproof, the payments made will become large enough

so that the Contractor's Bond and the reserve percentage on monthly estimates will not be sufficient to protect the Company, so that insurance must be taken out. In any case, the Company finally pays the cost of insurance in an increased price charged by the Contractor. Some advantage in having the Owner take out the insurance results from the fact that insurance is more economical when long terms are provided for, and the Owner will ultimately hold the policies.

As to the interests of the parties, the Company or Owner would have an interest to the extent of money already paid on the structure destroyed. Any balance beyond that would in general constitute an interest of the Contractor. The adjustment would seldom, if ever, present any difficulty.

In many Contracts for railroad or for public work, no buildings are to be erected so that no clause of this sort is needed.

15. INDEMNITY. The Contractor shall indemnify and save harmless the Company from and against all losses and all claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against it, by reason of any act or omission of the said Contractor, his agents or employes, in the execution of the work or in consequence of any negligence or carelessness in guarding the same.

This section seems fairly concise and yet is very comprehensive; it covers suits in contract for mechanics' liens, whether for labor or material; it covers suits in tort for negligence, trespass, nuisance, or infringement of patents; it covers a failure to observe any statute requirements or ordinances or other rules; it covers claims where suits have not been instituted. It is probably better for not being more explicit as to patent rights, for instance, or as to specific classes of negligence, or as to specific breaches of laws, ordinances, or regulations. It does not hold the Contractor responsible for injuries due to the acts of the Company or of others.

One Contract form reads:

A. The said Contractor agrees that he will indemnify and save harmless the Commonwealth (or the Company) from all suits or actions of every name and description, brought for, or on account of, any injuries or damages received or sustained by any person or persons, by or from said Contractor, his servants or agents, in the construction of said work or by or in consequence of any negligence in guarding the same, or in improper materials used in its construction, or by or on account of any act or omission of the said Contractor or his agents.

Another provision in the same Contract is:

B. Said Contractor further agrees that he will pay all bills for labor and materials contracted for by him on account of the work herein contemplated.

Other forms provide:

C. The Contractor stipulates, covenants and agrees, etc., that he has the right, power, authority, and license to furnish all said materials and do all the work, etc. and will defend any and all actions . . . for infringement of patent rights, etc.

D. The Contractor shall, during the performance of the work, take all necessary precautions and place proper guards for the prevention of accidents; shall put up and keep at night suitable and sufficient lights, and shall indemnify and save harmless, etc.

E. The Contractor shall indemnify, protect and save harmless the City and the Commission, its and their officers and agents, from all suits or claims, of every name or description, brought against the City or the Commission, or its or their officers and agents, for or on account of any injuries or damages to person or property received or sustained by any person or persons, by or from the Contractor, his servants or agents, in or on account of work done under this contract or extensions of or additions thereto, whether caused by negligence or not, or by or in consequence of any negligence in guarding the same, or any materials or explosives for the same, or by or on account of any improper materials used in its construction, or by or on account of any accident, or of any act or omission of the Contractor, his servants or agents; and the Contractor further agrees that so much of the money due to him under this agreement as shall be considered necessary by the Commission may be retained until all such suits or claims for damages as aforesaid have been settled, and evidence to that effect has been furnished to the satisfaction of the Commission.

F. The liability of the Contractor under this Article is absolute and is not dependent upon any question of negligence on his part or on the part of his agents, servants or employees, and the negligence of the Engineer to direct the Contractor to take any particular precautions or to refrain from doing any particular thing shall not excuse the Contractor.

This seems unfair to the Contractor. Its purpose apparently is to relieve the City from proving the negligence of the Contractor, for which evidence might be unavailable. That part which states that "negligence of the Engineer to direct . . . any particular precautions shall not excuse the Contractor" is proper.

A provision to the following effect is sometimes introduced:

G. Since the Contractor agrees to indemnify the City against all liability or damages on account of accidents occasioned, or claimed to be occasioned, by the omission or negligence of himself, his agents, or his workmen during the continuance of this agreement, and against all claim for royalties on patents as provided for in Article . . therefore the Contractor shall be promptly and duly notified in writing by the City of the bringing of any suit or suits on such accounts against the City, and shall be given the option of assuming the sole defense thereof. The Contractor shall pay all judgments obtained by reason of accidents or patents in any suit or suits against the City, including all legal costs, court expenses, and other like expenses.

This seems an undesirable provision, at least in the form stated here. There may be involved in a suit some general principle which does not much interest the Contractor; in some cases the Contractor's interest in the long run may even be contrary to that of the City, and the City should not divest itself of power to protect its interests.

A provision that:

H. The Contractor, at the option of the City, may be allowed to assume the sole defense,

would not be subject to the same objection, but such a clause seems unnecessary.

Under Section 17 is a provision for retaining moneys in case of "any lien or claim for which the Company might become liable," and this properly supplements this Section 15.

Section 15 above, seems sufficient for all of the purposes recited in the other readings. It should be noted that the Company is protected against any "loss" to itself as well as against claims from others.

16. SETTLEMENT FOR WAGES. Whenever, in the opinion of the Chief Engineer, it may be necessary for the progress of the work to secure to any of the employes engaged on the work under this contract any wages which may then be due them, the Company is hereby authorized to pay said employes the amount due them or any lesser amount, and the amount so paid them, as shown by their receipts, shall be deducted from any moneys that may be or become payable to said Contractor.

17. LIENS. If at any time there shall be evidence of any lien or claim for which the Company might become liable and which is chargeable to the Contractor, the Company shall have the right to retain out of any payment then due or thereafter to become due, an amount sufficient to completely indemnify the Company against such lien or claim, and if such lien or claim be valid, the Company may pay and discharge the same, and deduct the amount so paid from any moneys which may be or become due and payable to the Contractor.

While under Section 15, the Contractor is fully liable for the matters recited in Sections 16 and 17, the latter sections provide a more effective remedy in many cases; a failure to pay for labor may cause laborers to desert the work or to strike and so lead to considerable delay which may be avoided by means of the provisions above. In some cases the Contractor may even benefit from a payment to laborers before his next month's estimate becomes due.

Section 17, in specifying "claims" as well as "liens," apparently supplements Section 15 by allowing the Company to retain moneys otherwise due the Contractor, and thus protect itself in some degree in case there should be claims large enough to render the protection of the Bond

insufficient. In practice, money should not be retained against a " claim," provided the Bond gives adequate protection. The same is true when the claim is found valid. The Contractor may be hampered in his work if money is retained.

In another Contract form of similar import, there is an added provision:

A. The City shall have the right to retain from the contract price such sum as shall enable it to pay the amount of any claim for damages resulting from such accident, . . . until the validity of any claim shall be established and finally determined, and if established and finally determined, the same shall be paid from the amount so retained; otherwise such amount shall be paid to the Contractor.

Other forms provide:

B. The Commission for the City may retain out of any amounts due to the Contractor, sums sufficient to cover any unpaid claims of mechanics, laborers or others, for work performed or materials furnished under this contract; provided, that notice, in writing, of such claims, signed by the claimants, has been filed previously in the office of the Commission.

C. The Commissioner may, whenever he shall have reason to believe that the Contractor has neglected or failed to pay any sub-contractors, material men, workmen or employees for work performed on or materials furnished and used in or about the work contracted for, order and direct that no future vouchers or estimates be issued and no further payments be made upon such contract until said Commissioner shall be satisfied that such sub-contractors, material men, workmen and employees have been fully paid, and the reserve sum of 15 per cent hereinafter mentioned shall not be payable until the Contractor shall have satisfied the Commissioner that all sub-contractors, material men, workmen and employees have been fully paid.

This is on a different basis. If workmen and employees are unpaid, the successful continuance of the work is threatened, and the retaining of moneys in the interests of workmen may give them courage to remain on the job.

The following provision is more verbose:

D. If at any time during the progress of said work, said Contractor shall fail or neglect to pay for any labor performed, transportation charges, material furnished, or tools, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of said work, for ten (10) days after payment for same shall have become due, then the said Sanitary District shall have the power to pay for such labor, or for such transportation charges, materials, tools, machinery, appliances, fuel, provisions or supplies, and the amount so paid shall be retained out of the money due or to become due said Contractor. The said Sanitary District may refuse to make the payments hereinafter mentioned to the extent of such indebtedness until satisfactory evidence in writing has been furnished that said indebtedness has been discharged. In any such case said Sanitary

District is hereby authorized and empowered by said Contractor to ascertain by the Engineer the amount due or owing from said Contractor to any laborer or laborers, or to any person or persons or corporation for labor, transportation charges, material, tools, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed upon, in or on account of the work covered by this contract, in such manner and upon such proofs as the said Engineer may deem sufficient.

Another clause, sometimes used, is this:

E. The Contractor shall, at such times as moneys are payable hereunder, deliver to the Engineer a sworn statement, showing as of that date the amount owing by him for material furnished and labor performed.

The provisions of Sections 16 and 17 above seem effective and satisfactory.

18. WORK ADJACENT TO RAILROAD. Wherever the work embraced in this contract is near the tracks, structures or buildings of this Company or of other railroads, the Contractor shall use proper care and vigilance to avoid injury to persons or property. The work must be so conducted as not to interfere with the movement of trains or other operations of the railroad; or, if in any case such interference be necessary, the Contractor shall not proceed until he has first obtained specific authority and directions therefor from the proper designated officer of the Company and has the approval of the Engineer.

This section has special application to railroad work, and seems well adapted to its purpose.

It is not inappropriate that a clause of similar purport should sometimes be used with relation to work along highways when either general traffic or street railway traffic might need specific protection. Any suggestion as to its form for such cases would seem unwise here. The form should be adapted to the conditions existing.

In many cases a street railway company pays nothing for the use of the streets it occupies, and a question may arise whether it is lawful for a municipality to spend public money (through the Contractor) to avoid injury to the railway property. Whatever may be the law as to this, it is certainly lawful to spend money to protect traffic, in which the general public has a direct interest, and this section refers to traffic as well as to property. The requirement to avoid injury to property may involve not expense, but only wise and careful business procedure. Whether the street railway company would have a remedy if the municipality was responsible for injury to railway property, in the case stated, if this were necessary in the public interest, may be doubted; for unnecessary injury, the railway might readily have its remedy.

19. RISK. The work under this contract in every respect shall be at the risk of the Contractor until finished and accepted, except damage or injury caused directly by Company's agents or employes.

It is of the greatest importance that this matter should be covered clearly in every contract. The provision here seems wise. In special cases it may seem too severe; in such cases there should be substituted a provision stating with great clearness the risk assumed by each, leaving no reasonable chance for misunderstanding or lawsuit.

Other forms are:

A. The Contractor shall be held responsible for any or all materials or work done to the full amount of all payments made thereon, and he will be required to make good at his own cost any injury or damage which said materials or work may sustain from any sources or causes whatever before the final acceptance thereof.

B. All damage to the work, caused by shrinkage, settlement, washing, or other cause, whether accidental or not, or avoidable or not, before the completion and written acceptance of the whole work by the Chief Engineer, approved by the Commission, shall be repaired and made good by the Contractor.

C. The Contractor shall take all responsibility of the work, shall bear all losses resulting to him on account of the amount or character of the work or because the nature of the land in or upon which the work is done is different from what is assumed or what is expected, or on account of the weather, floods or other causes.

D. All risk of loss or damage to the works or to any part thereof or to any of the materials, plant, tools, appliances or other things, used in doing the work prior to final completion is assumed and shall be borne by the Contractor, and any such loss or damage shall be made good by the Contractor at his own cost.

E. The prices named in the bid . . . shall be paid . . . as full compensation . . . for all loss or damage arising out of the nature of the work as aforesaid, or from the action of the elements, or from any unforeseen obstruction or difficulties which may be encountered in the prosecution of the same; and for all risks of every description connected with the work.

F. The Board shall not be liable for any loss or damage, etc., nor for any risk, etc.

Section 19, above, is very terse and seems preferable to the others; the fact that it states " except damage or injury caused directly by Company's agents or employees " makes it fair to the Contractor. The law is very clear that where the completed structure is contracted for, the risk rests solely upon the Contractor, so that the words " until finished and accepted " are peculiarly to the point, and " in every respect at the risk of the Contractor " is conclusive.

20. ORDER AND DISCIPLINE. The Contractor shall at all times enforce strict discipline and good order among his employes, and any employe of the Contractor who shall appear to be incompetent, disorderly or intemperate, or in any other way disqualified for or unfaithful to the work entrusted to him, shall be discharged immediately on the request of the Engineer, and he shall not again be employed on the work without the Engineer's written consent.

A provision to this general effect is found in most Contracts. Other forms are:

A. The Contractor shall employ only competent men to do the work, and whenever the Engineer shall notify the Contractor, in writing, that any man on the work is, in his opinion, incompetent, unfaithful, disorderly, or otherwise unsatisfactory, such man shall be discharged from the work, and shall not again be employed on it, except with the consent of the Engineer.

B. Employ only competent and skilful men . . . and . . . any man incompetent, unfaithful or disorderly, or who uses threatening or abusive language to any official having supervision of the work . . . shall be discharged.

C. The Contractor shall, on the written request of the Engineer, discharge any person in his employ who appears to the Engineer to be disorderly, incompetent, or to be employed in violation of any terms of this contract.

D. If any person employed on the works by the Contractor be disobedient, or appears to the Engineer to be incompetent, unfaithful, or disorderly, he shall be discharged immediately on the requisition of the Engineer and shall not be again employed on the work.

The word "disobedient" covers an important feature. The word "unfaithful" in Section 20 probably serves the purpose.

E. The Contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work shall be employed where special skill is required.

F. The Contractor shall employ only competent, skillful and faithful men to do the work. Whenever the Engineer shall notify the Contractor in writing that in his opinion any man on the work is incompetent, unfaithful or disorderly, such man shall be discharged from the work and shall not again be employed on it.

G. The Contractor shall employ only competent men to do the work under this contract, which men shall be subject to the approval of the Engineer, whose written order to the Contractor requiring the discharge of any employee for inefficiency, insubordination, profanity, inebriety or any other just cause, shall be peremptory and binding upon said Contractor, and shall debar said employee from further employment on this work.

H. Upon direction of the Director, the Contractor shall discharge immediately and shall not re-employ on the work any superintendent, foreman, employee, or

agent of any kind whose presence the Director shall deem in any way prejudicial to the work.

Section 20 above places upon the Contractor the burden of the initiative in preserving order and enforcing discipline while providing for action if necessary on the part of the Engineer. It should be noted that the matter is in the hands of the Engineer who is upon the ground. The Contractor, if dissatisfied, has opportunity for appeal to the Chief Engineer. It is probable that the latter would rarely fail to support his subordinate, but the situation hardly admits of arbitration.

21. CONTRACTOR NOT TO HIRE COMPANY'S EMPLOYES. The Contractor shall not employ or hire any of the Company's employes without the permission of the Engineer.

This provision is not a common one, but seems desirable. It guards the Company against becoming short-handed at some inopportune time. Furthermore, especially in remote regions, the employees are often thrown in very close contact with the Contractor, and an unscrupulous Contractor might make it plain to some inspector or subordinate engineer that he would be sure of employment even if unsatisfactory to the Engineer from disloyalty or for other reason.

22. INTOXICATING LIQUORS PROHIBITED. The Contractor, in so far as his authority extends, shall not permit the sale, distribution or use of any intoxicating liquors upon or adjacent to the work, or allow any such to be brought upon, to or near the property of the Company.

A provision such as Section 22 is not uncommon, but is absent in some carefully drawn Contracts. Whatever view may be taken upon the general proposition as to prohibition in cities or towns, it is becoming recognized that drunkenness, often occurring after pay day, is a very serious detriment to the proper conduct of the work.

Other readings are:

A. The Contractor shall neither bring nor allow others to bring any spirituous or fermented liquor, or other intoxicant upon the grounds occupied for the prosecution of the work; neither shall he furnish nor allow others to furnish liquors or other intoxicants to the workmen in his employ or to any person or persons in the vicinity.

B. He shall not permit or suffer the introduction or use of alcoholic liquors upon or about the work embraced in this contract.

23. CLEANING UP. The Contractor shall, as directed by the Engineer, remove from the Company's property and from all public and private property,

at his own expense, all temporary structures, rubbish and waste materials resulting from his operations.

This section explains itself, and appears worth while although not used in some well written Contracts.

Alternative readings follow:

A. On or before the completion of the work the Contractor shall, excepting as otherwise expressly directed or permitted in writing, tear down and remove all temporary buildings and structures built by him; and all rubbish of all kinds from the grounds which he has occupied, and shall leave the spoil banks and all other parts of the grounds which may have been affected by his operations, in a neat and satisfactory condition.

B. On or before the completion of the work the Contractor shall, excepting as otherwise expressly directed or permitted in writing, tear down and remove all temporary buildings and structures built by him; and all rubbish of all kinds from the grounds which he has occupied, and shall leave the spoil banks and all other parts of the grounds which may have been affected by his operations, in a neat and satisfactory condition.

C. On or before the completion of the work, the Contractor shall, without charge therefor, tear down and remove all buildings and other temporary structures built by him for his own use, and remove the plant, surplus material and rubbish of all kinds, and shall leave the work and surroundings in neat condition.

D. After the completion of the work the Contractor is to remove all temporary structures built by him and all surplus materials of all kinds from the side of the work, and leave the whole clean and presentable.

E. Upon completion of the structures, all surplus material, temporary structures built by the Contractor and debris resulting from construction, reconstruction or removal, etc., are to be removed. No special payment will be made for the removal of debris, its cost and value being covered by the prices paid for the construction in place. The work will not be accepted or the contract considered completed until the work of cleaning up is also finished.

While more verbose this apparently adds nothing to what is covered by Section 23.

F. The Contractor further agrees to remove all materials, implements, barricades, falsework, debris and rubbish connected with or caused by said work immediately upon completion of the same, and to leave the premises in perfect condition in so far as affected by the work under this contract.

The following covers the keeping clear of work during construction:

G. The Contractor shall remove surplus excavated material and materials for construction as the work progresses, and shall render the street suitable, safe and convenient for traffic. Before final acceptance of the work, the Contractor shall

clean the street surface, walks, gutters, fences, lawns, private property, rights-of-way and structures, leaving them in as good condition as originally found, and shall remove all machinery, tools, surplus materials, temporary buildings and other structures, from the site of the work. Furthermore, the sewers, manholes, inlets, etc., shall be cleared of all scaffolding, centering, rubbish, or dirt.

H. The Contractor shall at his own expense keep the work, streets, and all public places occupied by him clear of all refuse and rubbish that may accumulate from any source whatever and shall leave them in a neat condition; but this is in no way to be construed as placing upon the Contractor the usual duties of the Street Cleaning Department.

Waste material of any character will under no conditions be permitted to remain on the streets or work, but must immediately on its becoming unfit for use in the work be carted away and disposed of by the Contractor at his own expense.

The last provision, *H*, is taken from a Contract for work upon elevated railway construction.

24. ENGINEER AND CHIEF ENGINEER DEFINED. Wherever in this contract the word Engineer is used, it shall be understood as referring to the Chief Engineer of the Company, acting personally or through an assistant duly authorized in writing for such act by the Chief Engineer, and wherever the words Chief Engineer are used it shall be understood as referring to the Chief Engineer in person, and not to any assistant engineer.

25. POWER OF ENGINEER. The Engineer shall have power to reject or condemn all work or material which does not conform to this contract; to direct the application of forces to any portion of the work which, in his judgment, requires it; to order the force increased or diminished, and to decide questions which arise between the parties relative to the execution of the work.

26. ADJUSTMENT OF DISPUTE. All questions or controversies which may arise between the Contractor and the Company, under or in reference to this contract, shall be subject to the decision of the Chief Engineer, and his decision shall be final and conclusive upon both parties.

These three sections together constitute very important provisions of the Contract. In many Contracts definitions are placed near the beginning of the Contract, and definitions of Engineer and Chief Engineer should then be among the others. This order of early definitions seems logical. The term Resident Engineer is often used for the Engineer in charge, locally, of construction work. In municipal work the title, instead of Chief Engineer, may be City Engineer, Commissioner of Public Works, City Manager, or Director. Under Section 25 above, the powers defined, which are large, seem to be those which should be exercised by the Engineer locally in charge of the work, and are such as to give him very complete control normally without intervention on the part of the Chief En-

gineer. It is important that he should have unquestioned authority over the conduct of the work, as above provided.

It is only fair to the Contractor, however, as provided in Section 26, that he should have the right of appeal to the Chief Engineer, to whom the Engineer is subordinate and from whom he receives instructions, although he necessarily acts largely upon his own responsibility as to details, and in emergencies. The prompt and effective conduct of the work requires that the Engineer should exercise such powers. The Engineer, however, is not infrequently young, active, and keen with enthusiasm, but with experience not sufficiently developed to prevent a tendency to look overmuch to the interest of his employer, the Company, with inadequate appreciation of the rights of the Contractor. What Engineer may have charge of the work may not be known, but the Contractor before making his bid, should know from experience or through inquiry, the character and disposition of the Chief Engineer, and in case of uncertainty or disagreement should have the benefit of his decision as is above provided. A Contractor sometimes refuses to bid where he believes the Chief Engineer to be unreasonable or unjust in his relations with the Contractor; in any case the bid should be made with a knowledge of the fairness, or lack of it, on the part of the Chief Engineer.

The provision that the decision of the Chief Engineer shall be final and conclusive upon both parties is of great importance, and extended comment is justified. The position of the Chief Engineer, in this matter, is much like that of an arbitrator. Arbitrators are sometimes appointed by the court, sometimes in accordance with a provision in the Contract. When appointed by the court their action may legally be final and conclusive, but this is not in point here. Where arbitration and the selection of arbitrators is provided for in advance in the Contract, which states that their finding shall be conclusive, the decisions have been to the effect that such provision is illegal, because it ousts the jurisdiction of the courts.

This view has become unimportant because another legal doctrine is found to be the proper one to apply to this case; the doctrine of the "condition precedent." When the decision of the Chief Engineer, or some specified official or person, is made a condition precedent to the payment of money or the acceptance of work, the courts will sustain such a provision. This decision may cover the classification of material, the quantities of any material, the acceptance of work, and many other matters requiring specific determination. While the words "condition precedent" are often found, their use is not necessary provided it appears from the Contract that this was intended.

The courts hold that the parties to the Contract have a right to agree how matters involved should be determined, and the courts cannot set

aside such an agreement without constructing a new Contract. The prices and terms have been fixed in view of such agreement. Moreover, in this case, the jurisdiction of the courts is not ousted. If the Company refuses to pay, the courts must be resorted to to secure judgment and payment, although the amount of such payment has been fixed by the Chief Engineer as a condition precedent to any obligation of the Company to pay. The Contractor may, under some Contracts, be brought into a Court of Equity to secure specific performance of Contract on his part. Either the Contractor or the Company may enter suit in a Court of Equity to make it appear that the Chief Engineer is guilty of fraud, or what is much the same thing, error so gross as to indicate lack of good faith.

A Circuit Court judge once instructed a jury that the decision of a Chief Engineer could be set aside for "gross error," but the Supreme Court of the United States, to which the case was appealed, overruled this decision, stating that the error must be "so gross as to indicate bad faith," and this is clearly the law. If the Chief Engineer should, without sufficient reason, refuse to make an estimate or render a decision required by the Contract, such refusal to act would constitute bad faith and the courts would take some action to remedy the trouble. The courts have also found bad faith to exist in at least two cases where the Chief Engineer was dominated by his superior officer, the president of the railroad. Utter carelessness has also been held to show bad faith. In some cases it has been the Contractor who unsuccessfully contested the decision of the Chief Engineer, but in other cases it has been the Company.

In most Contracts, as in Section 26 above, the decision is binding on both parties. In an important Contract to which the City of New York was a party, there was a provision that the Contractor was held by the decision of the Chief Engineer, but the City was not; and the court sustained the Contract in this matter on the ground that the Contractor could protect his own interests, but a municipality could not safely count on the zeal of its officials, so that a provision for greater protection to the City was wise and legal.

The courts have also held that the fact of a Chief Engineer being an employee of the Company did not make such a provision as Section 26 unsuitable or illegal; that in fact the Chief Engineer or Architect has special qualifications, is familiar with the work in hand, and is certainly more competent than a jury to determine matters connected with the Contract.

The law with relation to this clause may be summarized as follows:

Whenever it is apparent from the Contract, taken as a whole, that the decision of the Chief Engineer is to be final and conclusive, it is not essential that the words "final" or "conclusive" shall be specifically

used, nor is it necessary that the words " condition precedent " shall occur, although both of these are desirable. When it is apparent that the parties to the Contract have agreed to accept the decision of the Chief Engineer, no evidence as to error in his decision shall be accepted, unless to prove gross error such as to imply fraud or bad faith on his part.

It is clear that the decision of the Chief Engineer as to the quantity or quality of work is in this way final and conclusive. His decision as to the meaning of plans and Specifications is also final as to all matters of technical character; the testimony of any other engineer or expert probably would not be accepted to gainsay it, in the absence of fraud or bad faith. An error apparent to the court gathered from the face of the estimate or Engineer's decision and of the Contract, taken together, may be corrected by the court, which thus exercises its jurisdiction. Upon a pure matter of law, an error of the Chief Engineer apparent on the face of his decision and the Contract, taken together, will be corrected by the court in the exercise of its jurisdiction. In a case where a question of law is interwoven or combined with questions of fact or of interpretation of the Specifications, unless an error of the Chief Engineer should be evident on the face of his decision and the Contract, taken together, the court probably will not accept testimony as to an error of the Chief Engineer, in the absence of fraud or bad faith on his part.

It has been stated that the court ruled in one case that where the Contract provided that the decision of the Chief Engineer shall be final, the Court could not set this aside without constructing a new Contract. Along the line of this decision, it follows that the Chief Engineer can not (even as the court can not) change or re-make the Contract, and a decision contrary to its terms will be set aside by the court, which still reserves to itself the right to decide what the Contract means. The Chief Engineer should clearly appreciate that his decision must be under the terms of the Contract; that he cannot add to, or take away from, the clear terms thereof; that he cannot misinterpret the Contract in a way which is equivalent to changing it. The courts will not be ousted of their jurisdiction in these matters.

Whether the Chief Engineer has power to determine that a Contract has been broken by the Contractor, may be doubtful from a theoretical legal standpoint. In many, perhaps, most cases, his decision would be final as to the events and facts which constituted the breach. In such cases, the court would assume jurisdiction, but might not go beyond the testimony of the Chief Engineer as to the facts which constituted the breach.

As a matter of fact, the courts have frequently allowed the decision of the Chief Engineer (or similar official) to be overruled for fraud or bad

faith or because of mistake when the Chief Engineer substituted his view of justice for the plain provisions of the Contract, or read into the Contract things not there.

General business cannot be carried on without some loss due to unreasonableness, or to dishonesty in the purchaser. The merchant must know his customer or else meet loss. So must the Contractor and so must the Company. Unless compelled by law to accept the lowest bidder, as is the case with some municipalities, but not with railroads, it is wise to employ only those Contractors known to be capable and square. The Contractor, however, is never under obligation to bid on a Contract, and should not bid unless the invitation is from responsible and decent parties.

While most Chief Engineers of railroads are fair and honest, some may be dishonest, and others are unreasonable and fussy. The Contractor must know his man and in some cases refuse to bid, or bid high enough to cover this risk as well as other risks. It is well known that Contractors seldom refuse to bid on work where it is provided that the decision of the Chief Engineer shall be final, and some prominent Contractors believe this clause necessary and proper. That the prices bid are somewhat increased by such a clause seems a probable outcome, but the Companies are justified in paying such increase as is called for on this account.

If the Chief Engineer's decision is not to be final, what are the alternatives? One is submission to a board of arbitrators, generally three. Another is to refer any disagreement to one arbitrator specified by name in the Contract. A third is a trial by jury.

A board of three arbitrators is expensive where expert Engineers are employed, and in practice it is found that one arbitrator protects the interests of the Company, the second the interests of the Contractor, and the third arbitrator or umpire settles contested points after much pulling and hauling. This arrangement has often proved unsatisfactory.

While submission to a single arbitrator, named in the Contract, seems attractive at first sight, yet this has disadvantages. It suggests dispute at the outset if any benefit to either party is likely to result, and in view of that fact, is it improbable that the outcome will be a trial of wits between the Contractor and the Chief Engineer, who in this case is no longer an arbitrator whose duty is to deal justly between the Company and Contractor? Taking Chief Engineers and Contractors as you find them, will either the Contractor or the Contractor's lawyer stand a better chance in this battle of wits against the Chief Engineer and Company's lawyer, than they stand now when the Chief Engineer feels the responsibility of dealing fairly between the railroad and the Contractor?

Submission to a jury is full of uncertainties.

Most Contracts by Civil Engineers now provide that the decision of the Chief Engineer shall be final. The American Institute of Architects, after very careful consideration, favors submission to arbitrators. Their excellent provision for this may be found in their Standard Contract Form in the chapter on Additional Contract Forms.

Another reading which is often used in Contracts is as follows:

A. All the work under this contract shall be done to the satisfaction of the Chief Engineer, who shall in all cases determine the amount, quality, fitness and acceptability of the several kinds of work and materials which are to be paid for hereunder, and shall decide all questions which may arise as to the fulfilment of the contract on the part of the Contractor, and his decision thereon shall be final and conclusive; and such determination and decision, in case any question shall arise, shall be a condition precedent to the right of the Contractor to receive any money hereunder.

This is less concise than Section 26 above, but has much to commend it. It specifies "the satisfaction" of the Chief Engineer, the "amount, quality, fitness, and acceptability," and the "decision of all questions" "as to the fulfilment," and finally makes these matters "a condition precedent," and taken altogether it is a very strong clause in view of court decisions.

B. To prevent disputes and litigation, the Chief Engineer shall be the referee to decide all questions which may arise as to the fulfillment of this contract on the part of the Contractor, and his estimates and decisions shall be final and conclusive. All the work contemplated and described in this contract shall be done to the satisfaction of the Chief Engineer, who shall be sole judge as to the fitness of materials.

Since the law touching this does not follow the rule of arbitration but does rest on the "condition precedent" basis, the use of the word "referee" and the omission of the "condition precedent" clause make this reading seem undesirable as well as less complete than the other reading above.

A further provision, already referred to under Section 10, is sometimes attached to the above.

C. The Chief Engineer shall have the right of correcting any errors or omissions in the plans and specifications when such correction is necessary for the proper fulfilment of their intention, the action of such correction to date from the time that the Chief Engineer gives due notice thereof.

This clause, in form at least, seems not to give to the Chief Engineer undue power. Corrections necessary for the work should be possible. The Contractor, however, should not be the one to yield if the Chief Engineer is incapable in his drafting of the Contract, and the provision as to date gives reasonable protection to the Contractor. Such changes can

hardly alter the character of the Contract. They are corrections rather than "changes" which are treated under Section 28. Other provisions somewhat similar in character may be found under Section 3.

Another form has a clause ending:

D. And the Chief Engineer shall be deemed the referee of both parties to make such determinations and directions.

This seems undesirable for the reasons stated under *B.*

In some Contracts, where the definitions of Chief Engineer and of Engineer are substantially as given in Section 24, the provision is made that the decision of the Engineer shall be final. In cases like the New York Water Supply, many separate divisions of the work are of great scope, and there is some reason for placing this responsibility upon the Engineer in charge of each division. It seems desirable in this case that there should be an additional definition of Resident Engineer or Division Engineer and that this official should have the necessary power, rather than the Engineer who may be for some purposes a subordinate.

Furthermore, some provision should be made for the absence of the Chief Engineer, and the following shows a reading already in use:

E. Any engineer substituted by the Commission in place of the Chief Engineer during the absence, illness or disability of the Chief Engineer, or when the Commission shall so determine, shall, during his official connection, have all the power and authority of the Chief Engineer and in all respects be recognized as such Chief Engineer.

A somewhat more concise form is suggested:

F. In the absence or disability of the Chief Engineer, the Company may designate an Acting Chief Engineer who may exercise all the powers and authority of the Chief Engineer.

This should be added to Section 24.

An addition should also be made to Section 26 so that it shall read:

G. ADJUSTMENT OF DISPUTE. All questions and controversies which may arise between the Contractor and the Company, under or in reference to this Contract, shall be subject to the decision of the Chief Engineer, whose decision shall be final and conclusive upon both parties, and his approval shall be a condition precedent to the acceptance of work or payment of money either of which is involved in such decision.

Sections 37 and 38 will be found to be somewhat strengthened and clarified by this addition, which is important so far as Section 26 is concerned.

The following clause or its equivalent is found in some Contracts:

H. The decision of the Chief Engineer shall control as to the interpretation of drawings and specifications during the execution of the work under them, but if

either party shall consider itself aggrieved by any decision it may require the dispute to be finally and conclusively settled by the decision of arbitrators, each side choosing one, these two a third member, and the decision of a majority to be final and binding upon both parties.

As has been stated, many Engineers consider arbitration proceedings of this sort fully as expensive and fully as unsatisfactory as a trial in court. Furthermore, questions arise involving the immediate construction of work, questions which cannot wait. A clause intended to cover this contingency is as follows:

I. All questions or controversies which may arise between the Contractor and the Company under or in reference to this Agreement shall be subject to the decision of the Chief Engineer, which shall be given in writing, and the Contractor will perform the work in accordance therewith.

If in doing the work according to such decision it is necessary for the Contractor to do any extra work or any work not called for by this agreement, the Company will pay an equitable amount for such work.

This form of provision failed to meet the approval of a committee of Engineers to whom it was submitted. It opens the way to a legal controversy.

27. ORDER OF COMPLETION; USE OF COMPLETED PORTIONS. The Contractor shall complete any portion or portions of the work in such order of time as the Engineer may require. The Company shall have the right to take possession of and use any completed or partially completed portions of the work notwithstanding the time for completing the entire work or such portions may not have expired; but such taking possession and use shall not be deemed an acceptance of the work so taken or used or any part thereof. If such prior use increases the cost of or delays the work, the Contractor will be entitled to such extra compensation, or extension of time, or both, as the Chief Engineer may determine.

This appears to be directed not primarily to the order in which work shall be done, but it is intended to cover the use of part of the work before the whole is completed. In most Contracts such a provision is unnecessary. It applies well to railroad Contracts in many cases, and may also apply to highway construction, to sewers, to waterworks and probably to other kinds of construction, but in very many Contracts such a provision is not used.

It is not uncommon to make the following provision or its equivalent:

A. It is further agreed that the work shall be carried on at such points, and in such order of precedence, and at such times and seasons, as may from time to time be directed by the Engineer.

B. At such points and in such order, not inconsistent with the other provisions of the contract, as the Engineer may from time to time prescribe.

Ordinarily this would read Engineer rather than Chief Engineer, meaning that the Engineer upon the work would exercise this direction. In some cases the Chief Engineer might be specified.

Where no use is to be made of the work earlier completed and where interference with the public is not involved, the Contractor should be allowed to arrange the order of work to his best advantage and this clause be omitted.

C. The Engineer shall have no power, direction or control over the work embraced in this contract, except as herein expressly set forth, or as may hereafter be voted by the Commission. . . . He shall have power to specify, order or direct, either orally or in writing, the manner in which the work described in the specifications shall be executed; but such power and authority shall not extend to the actual execution of the work, which shall be in the sole control of the Contractor and for which the Contractor alone shall be responsible.

Where portions of the work are used before the completion of the whole, the cost to the Contractor will in some cases be increased; in others not. The Uniform Contract Form allows the Chief Engineer to determine this. The Board of Water Supply of the City of New York has provided in one case:

D. The Board reserves the right to let water into the . . . siphons, the uptake and downtake chambers and the by-pass aqueduct, as soon as these structures are sufficiently constructed to make this feasible, and to use said structures for conveying water to the City, irrespective of the fact that other parts of the work covered by this contract may not be completed. The Contractor shall regulate the progress of his work, so that it will not be impeded by the exercise of this right on the part of the Board, and he shall not be entitled to any allowances by way of damages, because of the filling or partial filling of the structures with water, as herein provided.

While the above Contract does not provide that the Engineer shall prescribe the order of the work, there is a special Contract provision covering the time within which the different parts of the work shall be completed.

In a Contract for the Rapid Transit Railroad of New York, specific provision is made for extra compensation where stations are used previous to entire completion. The Contract is for "station finish."

E. The Railroad or a portion or portions thereof may, at the option of the Commission, be opened and operated for passenger traffic before the completion of the Works. In the event that the Railroad or any portion or portions thereof are so opened and operated for passenger traffic before the expiration of the time herein prescribed for the completion of the Works or before the expiration of the period to which such time may be extended as provided in Chapter VIII by resolution of the Commission, the prices above stipulated in the Schedule shall be increased by ..... per centum (....%) for the station finish work performed after the

date of such opening and operating for passenger traffic at each station so opened and used for passenger traffic and at each portion of the Railroad between stations so opened and operated for passenger traffic.

28. CHANGES. The Company shall have the right to make any changes that may be hereafter determined upon, in the nature or dimensions of the work, either before or after its commencement, and such changes shall in no way affect or void the obligations of this contract. If such changes make any change in the cost of the work, an equitable adjustment shall be made by the Chief Engineer to cover the same.

A provision of this sort is very common and should be a part of every Contract. If there is such a provision the surety will be held although such changes are made, if the Bond is suitably drafted. It should be understood, however, that the changes must be such as to reasonably "modify" the original Contract and not such as to virtually "substitute" a new Contract. A court would doubtless rule that a virtually new Contract could not be "substituted," and the decision of the Chief Engineer to the contrary would not avail. The error of the Chief Engineer would "appear on the face of the Contract" and the court would refuse to be ousted of its jurisdiction. Changes which do more than modify the Contract may of course be made by written agreement between the parties, but the sureties will not then be held unless they also consent, and their consent should be in writing. Modifications of details of construction would not require any action under this clause. The following clause has been used with relation to radical changes:

A. No correction or change in this contract shall be made except by written instrument duly authorized by the Commission and consented to by the Contractor and by the sureties upon his bond; but this provision shall not limit or affect the right to prescribe variations of construction as in this contract elsewhere provided.

The same Commission in another, but earlier Contract provides that:

B. The Commission shall have the right, during the progress of the work, to amplify the plans, to add explanatory specifications and to furnish additional specifications and drawings.

Other provisions in use are shown below:

C. This contract and the specifications herein contained, and the plans herein referred to, may be modified and changed from time to time as may be agreed in writing between the parties hereto, in a manner not materially affecting the substance thereof or materially changing the price to be paid, in order to carry out and complete more fully and perfectly the work herein agreed to be done and performed.

D. The Commission further reserves the right to change the location and to alter, in any way it may deem necessary for the public interests, the drawings aforesaid, in part or altogether, at any time during the progress of the work, without constituting grounds for any claim by the Contractor for payment or allowance for damages or extra service other than is provided for items of the different classes of construction shown in the schedule, or where, in the opinion of the Engineer, not susceptible of classification, then as otherwise provided herein.

E. The Board reserves the right to make any changes in the specifications and plans which may be deemed necessary either before or after beginning any work under this contract, without invalidating this contract; provided, that if alterations are made, the general character of the work as a whole is not changed thereby. If such alterations increase the quantity of work to be done, such increase shall be paid for according to the quantity of work actually done at the unit price specified under this contract for each class of work performed. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages or for loss of profits on the work to be dispensed with and the Board shall not be required to pay for work or material omitted.

The latter provisions are properly covered by a clause as to prices, that the quantities are approximate, etc.

Another form is this:

F. In case of any change ordered as aforesaid, or in case any other changes in the work are made by the mutual consent of the parties hereto, whether affecting the contract price or not, or the time of completion or not, all and singular the other provisions of this contract shall remain in force and apply to the contract as thus altered.

Whether the surety would be relieved of liability in this case would depend upon whether such changes were radical enough to essentially alter the character of the Contract. The signing of a formal agreement to the change would tend somewhat to relieve the surety unless his written consent was also had. It may be wise to secure the surety's consent in cases where it is not clearly necessary legally.

Somewhat similar readings are shown below:

G. No alteration or amendment of this contract shall be valid unless the same is made by an instrument in writing signed by the Contractor and the Engineer and approved by a vote of the Commission.

In case of any alterations, so much of this agreement as is not necessarily affected by such alterations shall remain in force upon the parties hereto.

H. It is further agreed that, in case of modification or alteration or addition to this contract, so much of this contract as is not necessarily affected thereby shall remain in full force and binding upon the parties hereto; and the making of such modifications or alterations in, or additions to this contract shall not release the bondsmen, or Surety Company, from liability hereunder.

The forms touching changes, as used in many Contracts, are extensive and elaborate, and need not be cited at length here. A not uncommon reading is:

I. The Engineer may make alterations in the line, grade, plan, form, dimensions or materials of the work or any part thereof, either before or after the commencement of construction.

To this is sometimes added:

J. If such alterations diminish the quantity of work to be done, they shall not warrant any claim for damages or for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity actually done and at the price stipulated for such work under this contract.

The Uniform Contract Form is simple and concise, and appears to be sufficient.

29. EXTRA WORK. No bill or claim for extra work or material shall be allowed or paid unless the doing of such extra work or the furnishing of such extra material shall have been authorized in writing by the ..... Engineer.

The price for such work shall be determined by the Chief Engineer, who may either fix a unit price or a lump-sum price, or may, if he so elects, provide that the price shall be determined by the actual cost, to which shall be added ..... per cent. to cover general expense and superintendence, profits, contingencies, use of tools, Contractor's risk and liability. If the Contractor shall perform any work or furnish any material which is not provided for in this contract, or which was not authorized in writing by the Engineer, said Contractor shall receive no compensation for such work or material so furnished, and does hereby release and discharge the Company from any liability therefor.

If the Contractor shall proceed with such extra work or the furnishing of such extra material after receiving the written authority therefor, as hereinbefore provided, then such work or material, stated in the written authority of the Engineer, shall be covered, governed and controlled by all the terms and provisions of this contract, subject to such prices as may be agreed upon or fixed by the Chief Engineer.

If the Contractor shall decline or fail to perform such work or furnish such extra material as authorized by the Engineer in writing, as aforesaid, the Company may then arrange for the performance of the work in any manner it may see fit, the same as if this contract had not been executed, and the Contractor shall not interfere with such performance of the work.

The subject of extra work needs very careful attention, and recent Contracts, in many cases, are unduly elaborate and extensive in their wording, so much so that space is not available to quote them. In times past Contractors not infrequently made bids on Contracts where their expectation of profit rested in the hope of large allowances for extra work, including some probability of a lawsuit. There is naturally some diffi-

culty in determining the actual or direct cost of extra work, and the interests of the railroad or City should be carefully guarded. On the other hand, on work not specifically pointed out in the Contract, the Contractor is entitled to a fair profit, and should not be compelled to accept in advance a price fixed by the Engineer, which may prove inadequate.

Section 29, above, is unusual in that the extra work is "authorized" rather than "directed" or "ordered" which is the more common custom. Ordinarily the Contractor with labor and plant at hand can do the work to better advantage than any one else. The railroad or City should have the right to "direct" the Contractor to do the work, and conversely the Contractor should have the right to do it if he wishes. In some cases of extra work the City or railroad can do the work to better advantage than the Contractor, and provision should be made for this contingency.

The following reading is intended to include most of the desirable features suggested by comparing a large number of Contract forms touching "extra work." For convenience of discussion below, numbered paragraphs are used, although otherwise the matter would be divided into three paragraphs only and those not numbered.

A. 1. When directed in writing by the Engineer to do so, the Contractor shall furnish material and do extra work not otherwise provided for by the terms of this Contract but which may be connected with, or necessary to, the proper completion of the work.

2. Such material and work shall be furnished and done as part of this Contract and subject to its provisions, and at such prices as may be agreed upon by the Engineer and the Contractor.

3. If prices be not so agreed upon, the price shall be determined by the reasonable direct cost of materials and labor furnished by the Contractor, to which shall be added ..... per cent to cover general expense and superintendence, profits, contingencies, use of tools and plant, and Contractor's risk and liability.

4. The direct cost may include a reasonable proportion of the time of the foreman and timekeeper, as well as establishment charges and insurance.

5. The Contractor shall furnish evidence of cost in such form and at such times as the Engineer may require. In the absence of satisfactory evidence of cost, the Engineer shall determine a reasonable price.

6. The decision of the Chief Engineer shall be final as to the direct cost of materials and labor or as to reasonable cost or price.

7. The Contractor shall make no claim for extra work unless it be ordered in writing by the Engineer, nor for work so ordered unless an account be presented to the Board before the ..... day of each month following that during which work has been done or material furnished under such order.

8. Work which can be reasonably classified and paid for at the unit prices specified in this Contract shall not be regarded as extra work.

9. If agreed to by the Contractor, the Board may arrange for the performance of all or any part of the extra work by other parties or in any manner it may see fit, and the Contractor shall not interfere with such performance nor make any claim against the Board because of such performance.

Paragraph 1 somewhat defines "extra work," which is also limited by paragraph 8. It also provides for direction "in writing," which is almost universally required, and which paragraph 7 further enforces. It provides that the extra work shall be "directed" rather than "authorized." It also specifies that the extra work shall be connected with, or necessary to, the completion of the work. Other work altogether disconnected will not come under this Contract even as extra work.

Paragraph 2 specifies the extra work as part of the Contract and thus protected by the Bond. It further provides for fixing prices by agreement, which in many cases is more satisfactory both to Contractor and Engineer.

Paragraph 3 provides for payment by cost with . . . per cent added; this to apply in cases where prices are not agreed upon. There are many cases where the extent of extra work cannot be foreseen and where a price in advance cannot reasonably be fixed. Ten or fifteen per cent are common figures in use for the addition. This percentage should be fixed before bids are received so that all bids may be on the same basis. One form in use says:

B. Fifteen per cent of such net cost for the use of tools and plant, superintendence and all other expenses incidental to the performance of such work and the furnishing of such material.

Some may prefer the greater simplicity of this form. It does not definitely include profits, contingencies, risk, or liabilities; these are not "expenses."

The "reasonable direct" cost seems better than "actual" cost. The actual cost to the Contractor may be twice what it ought to be, if the Contractor buys material of a friend and the City pays for it. The use of the word "reasonable" seems justified.

The cost of establishment of any special apparatus or appliances should be included in the direct cost, together with insurance on materials specially involved, and insurance on labor which, in some lines of construction, amounts to as much as 8 per cent of the wages paid to the men. Recent Contracts often include a clause covering such insurance.

Paragraph 4 recognizes the fact that doubt may exist as to whether a foreman is exercising superintendence, and it prevents misunderstanding on that point.

Paragraph 5 provides some safeguard as to determining costs. Some Contract forms provide:

C. The Contractor shall at the end of each day . . . furnish to the City daily time slips. . . . If required by the City, the Contractor shall produce any books, vouchers, records, and memoranda.

In very many cases this red tape is quite unnecessary. The provision above, that the Contractor shall furnish evidence of cost, etc. allows the Engineer to require all these things in cases where it is found to be necessary, and to dispense with such action in simple and clear cases. The refraining from such action by the Engineer may in some cases be a useful lever to secure desired results. The Contractor must furnish " satisfactory evidence of cost "; otherwise the Engineer determines reasonable cost.

Paragraph 6 gives authority to the Chief Engineer, rather than the Engineer, to determine costs or prices in case the Engineer questions the evidence of cost returned by the Contractor, or in case the Contractor is dissatisfied with the decision of the Engineer. While many Contractors will object, the abuse in connection with extra work has at times been very acute, and the railroad or City is justified in protecting itself. Arbitrary action of the Chief Engineer, not taken in good faith, will be set aside by a court.

Paragraph 7 covers more fully the necessity for the written order and further provides for the prompt presentation of the account for the extra work. Claims promptly made can be properly investigated, while claims made after the Contract is completed cannot be.

The requirement of a written order requires further comment. Engineers very commonly fail to observe it, and Contractors fail to insist on it. A systematic failure by the Engineer to observe it would probably be held by a court to serve as a waiver of this provision, and a court might even hold that a single failure would act as a waiver. In the stress of circumstances, the Contractor often will and should start extra work at once on an oral order, but the written order should follow without material delay, even at some inconvenience, and a court would, doubtless, hold this to be compliance.

Paragraph 8 largely explains itself. The word " reasonably " is in favor of the Contractor. Work of special difficulty might be classed as extra work even if possible of measurement by the cubic yard, if such work be not definitely covered by the Contract and Specifications.

Paragraph 9 is desirable because cases will occur where the railroad or some department of a City can do some part of any extra work to better advantage than the Contractor. The latter, however, should not be " compelled " to allow other parties to enter upon the scene of his work unless provided definitely when the Contract was signed.

The phraseology of paragraph 1 varies in different forms used. The following illustrate this:

D. **The Contractor shall perform such extra work as the Engineer may direct in his written order but shall not perform any extra work unless such work has been ordered by the Engineer in writing.**

E. The Contractor shall do any work not herein otherwise provided for when and as ordered in writing by the Chief Engineer or his agents specially authorised thereunto in writing.

For the suitable conduct of the work the Engineer must have authority to give the order. All detail work should be in the hands of the Engineer. The Contractor should have the right to appeal to the Chief Engineer for his decision in cases of disagreement.

It is impracticable to cite many variations in readings. They are many and often long. The following illustrates this:

F. In case any work or materials shall be required to be done or furnished in or about the work — whether specified herein or indicated on the plans or not — which in the opinion of the Engineer are not susceptible of classification under the Schedule of Unit Prices, the Contractor shall and will if ordered by the Engineer do and perform such work and furnish such materials at and for the actual and necessary net cost in money to the Contractor for labor and for material, where new material is used, and in addition thereto ten (10%) per centum of such net cost for the use of tools and plant, superintendence and all other expenses incidental to the performance of such work and the furnishing of such material, and the Contractor shall have no further claim in excess of the above; but this method of payment shall not apply to the performance of any work or the furnishing of any material which in part or in whole is, in the opinion of the Engineer, susceptible of classification under such schedule, which work or material shall be paid for in part or in whole, as the case may be, at the unit price given in such schedule, except as herein otherwise expressly provided.

In case any work or material shall be required to be done or furnished under the provisions of this Article, for cost plus ten (10%) per centum, the Contractor shall at the end of each day during the progress thereof furnish to the Engineer daily time slips showing the name and number of each workman employed thereon, the character of work he is doing and the wages paid or to be paid to him and also a daily memorandum of the material delivered on the work showing the amount and character of such material, from whom purchased and the amount paid or to be paid therefor. If required, the Contractor shall produce any books, vouchers,records or memoranda showing the work and materials actually paid for and the actual prices therefor. Such daily time slips and memoranda shall not, however, be binding upon the City, and if any question or dispute shall arise as to the correct cost of such work or material, the determination of the Engineer upon such question or dispute shall be final and conclusive.

30. PROPERTY AND RIGHT OF ENTRY. The Company shall provide the lands upon which the work under this contract is to be done, except that the Contractor shall provide land required for the erection of temporary construction facilities and storage of his material, together with right of access to the same.

The Contractor shall not ship any material or equipment until he has received written notice from the Engineer that he may proceed with said work or any part thereof.

This section is especially applicable to railroad work, but may be pertinent in many other cases. It informs the Contractor of his duty to provide lands for storage of material and other temporary facilities. The railroad or the City may often provide these at his request, or in some Contracts this provision may be omitted.

The provision as to notice before shipping material may be necessary in some cases. If everything is ready when the Contract is signed this provision seems unnecessary, but the notice may be given at that time.

Another Contract form provides for delivery of material for bridge construction:

A. It is agreed that the Contractor shall notify the Engineer in writing at least ten days prior to the time when the superstructure metal work included in this contract will be ready for delivery, and that said Contractor shall not deliver any of said superstructure metal work until he has received the written notification of the Engineer so to do.

31. UNAVOIDABLE DELAYS; EXTENSION OF TIME ON PARTS OF WORK. If the Contractor shall be delayed in the performance of the work from any cause for which the Company is responsible, he shall, upon written application to the Chief Engineer at the time of such delay, be granted such extension of time as the Chief Engineer shall deem equitable and just.

Other readings are:

A. Should the Contractor be delayed by the City or work be suspended by the City for any cause, there shall be added to the time of completion a time equal to any or all such delays caused by the City; but the Contractor shall not be entitled to claim damages or extra compensation for such delay or suspension.

The allowance should be "equivalent" time rather than "equal" time. Three days in the best of weather are equivalent to more than three days late in the fall or early winter, and this should apply in the case of "suspension" as well as delay of work.

Even this allowance for delay is inadequate for the Contractor, but the possibility of delay beyond his control is one of the risks he assumes; and it is not easy to write a clause which will be just, and satisfactory to both parties. The delay for which the Company is "responsible" may be essentially beyond its control.

Section 32 has a provision for suspension of work. Many engineers, however, may desire to use the clause providing against damages or compensation on account of delay.

Another form includes as causes justifying extension of time:

B. Delay on the part of railroads in transporting material consigned to said Board (not consigned to Contractor) or by riot, insurrection, war, pestilence, acts of public authorities, fire, lightning, earthquake, cyclone, or through acts of

other parties under contract with said Board, ... but no allowance will be made unless a claim therefor in writing is presented within four days after the commencement of such delay..... Said Chief Engineer shall decide the number of days that said Contractor has been so delayed, and his decision shall be final and binding upon both parties hereto.

Another form, for sewer construction, provides for such extension:

C. If delay occurs on the part of the Board in furnishing material or if the Contractor is delayed by other cause which is not his fault, the Contractor shall have no claim for damage on that account, but the time for completing the contract shall be extended as the Engineer shall judge necessary, provided the Contractor shall notify him of the delay within ten days of its occurrence.

D. As the Engineer shall certify in writing to be just in case of delay on account of cold weather or flood in the Ohio river.

In many Contracts the Contractor should have extension of time for delay from causes beyond his control. In other cases any delay may result in a loss to the railroad or City, and it is a question whether the railroad or the Contractor shall stand the loss. If the Contractor assumes the risk, the railroad probably pays for it in increased price.

32. SUSPENSION OF WORK. The Company may at any time stop the work, or any part thereof, by giving ..... days' notice to the Contractor in writing. The work shall be resumed by the Contractor in ten (10) days after the date fixed in the written notice from the Company to the Contractor so to do. The Company shall not be held liable for any damages or anticipated profits on account of the work being stopped, or for any work done during the interval of suspension. It will, however, pay the Contractor for expense of men and teams necessarily retained during the interval of suspension, provided the Contractor can show that it was not reasonably practicable to move these men and teams to other points at which they could have been employed. The Company will further pay the Contractor for time necessarily lost during such suspension at the rate of ..... per cent. per annum on the estimated value of materials, equipment and fixtures furnished by the Contractor on the work which are necessarily idle during such suspension, said rate of ..... per cent. per annum being understood to include depreciation, interest and insurance. But if the work, or any part thereof, shall be stopped by the notice in writing aforesaid, and if the Company does not give notice in writing to the Contractor to resume work at a date within ..... of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work so suspended and he will be entitled to the estimates and payments for such work so abandoned, as provided in Section 38 of this contract.

Another reading given below shows common usage:

A. The Contractor shall delay or suspend the progress of the work hereunder, or any part thereof, whenever he shall be so required by written order of the Engineer, and for such periods of time as the Engineer may order, provided, that in the

event of such delay or delays or of such suspension or suspensions of the progress of said work, the time for the completion of the delivery of said work so suspended, or delayed by such suspension or suspensions, shall be extended for a period equivalent to the time lost by reason of such suspension or suspensions, but such order of the Engineer shall not otherwise modify or invalidate in any way any of the provisions of this contract, and said Contractor shall not be entitled to any damages or compensation from the Board on account of such delay or delays, suspension or suspensions.

The latter form seems unfair to the Contractor. The Owner should pay the reasonable cost to the Contractor if the work is suspended for the Owner's benefit and to the Contractor's disadvantage. The provision of Section 32 constitutes an effort to do justice, and goes far in that direction. It is not clear that it makes the Contractor whole. He makes no profit while idle, and there are overhead charges which continue during the period of suspension. It is also a recognized general principle that when work is moving well, there is a profit; where work is dragging, there is a loss to the Contractor. The slowing up due to suspension thus means a loss. Furthermore even shoveling is, more or less, skilled labor, and after interruption the shoveling force picked up may not at once replace in quality the force laid off.

Suspension thus adds another "risk of the work" which the Contractor must figure in his bid, and there is reason in his statement that if he should bid high enough to cover the risks taken, he would seldom, if ever, land a Contract. The contingency is one for which the Company is responsible, and it is not clear that the Company should come out of it better than the Contractor. Engineers may properly consider framing a section which shall even better protect the Contractor.

The following reading seems more favorable to the Contractor, but does not provide for anticipated profits. It allows the Contractor to quit if the suspension will cut into his profits too severely.

B. The Company reserves the right to suspend operations on the work under this contract or any particular part or parts by giving the Contractor twenty (20) days' notice, and in the event of such right being exercised, the Engineer shall grant to the Contractor an extension of time equivalent to the time of suspension of the work. It is further understood and agreed that on such suspension the Contractor may have the option to cancel this contract; or if the Company shall postpone or suspend the work under this contract indefinitely or altogether, it may cancel this contract, which it reserves the right to do; then in either case of cancellation the Engineer shall prepare a final estimate of the value of the part of the work done, such estimate to include any materials purchased and delivered to the Contractor, or specially designed and ordered for the work under this contract the same as if the work has been completed, and this contract shall thereupon be terminated. All materials paid for and included in such final estimate that are not on the property of the Company, shall be delivered to the Company before such

estimate is paid. The cancelling of this contract shall not entitle the Contractor to any claim for damages or for anticipated profits on the unperformed portion of the work; but the Chief Engineer shall determine upon a fair and equitable compensation to be paid the Contractor for such cancelling, taking into consideration the relative value of the work done, as compared with the whole work herein contracted for, and the expense incurred in furnishing tools and temporary works for the prosecution of the work contracted for.

The Uniform Contract Form also provides that after a period of delay specified in the Contract, the Contractor may abandon that part of the work suspended. This also seems only fair.

A Contract in which the reasonable interests of the Contractor are protected is not contrary to the interests of the Company in the long run and broadly considered.

Another reading, providing only for extension of time, is this:

C. The Commission reserves the right of temporarily suspending the execution of the whole or any part of the work herein contracted to be done, if it shall deem it for the interests of the City so to do, without compensation to the Contractor for such suspension other than extending the time for completing the work as hereinbefore provided as much as, in the opinion of the Commission, it may have been delayed by such suspension. The length of time (expressed in days or parts of days) during which the work or any part thereof has been delayed by any act or omission on the part of the City (all of which shall be determined by the Commission, which shall certify to the same in writing and whose determination and certificate thereof shall be binding and conclusive upon the Contractor) will be allowed to the Contractor, and the time for the completion of the Works shall be extended by resolution of the Commission accordingly.

It has been stated elsewhere that any extension of time for suspension or delay should be equivalent time rather than equal time.

A reading differing materially in detail is shown below:

D. The City, on account of public necessity, adverse weather conditions, or for other reasons, may order all work suspended, and thereupon the Contractor shall neatly pile up all materials, provide and maintain board walks and crossings and take other means to properly protect the public and the work and to facilitate traffic. In case of such stoppage of work, the time allowed for the completion of the work shall be extended in an amount equal to that lost by the Contractor in such manner, but the Contractor shall be entitled to no additional claim for damages.

33. (a) EXPEDITING WORK, CORRECTING IMPERFECTIONS. If the Chief Engineer of the Company shall at any time be of the opinion that the Contractor is neglecting to remedy any imperfections in the work, or is not progressing with the work as fast as necessary to insure its completion within the time and as required by the contract, or is otherwise violating any of the provisions of this contract, said Chief Engineer, in behalf of the Company, shall have the power, and it shall be his duty to notify the Contractor to remedy such im-

perfections, proceed more rapidly with said work, or otherwise comply with the provisions of this contract.

(b) ANNULMENT. In such case the Company may give the Contractor ten (10) days' written notice, and at the end of that time, if the Contractor continues to neglect the work, the Company may provide labor and materials and deduct the cost from any money due the Contractor under this agreement; and may terminate the employment of the Contractor under this agreement and take possession of the premises and of all materials, tools and appliances thereon, and employ such forces as may be necessary to finish the work. In such case the Contractor shall receive no further payment until the work shall be finished, when, if the unpaid balance that would be due under this contract exceeds the cost to the Company of finishing the work, such excess shall be paid to the Contractor; but if such cost exceeds such unpaid balance, the Contractor shall pay the difference to the Company.

(c) COMPANY MAY DO PART OF WORK. Upon failure of the Contractor to comply with any notice given in accordance with the provisions hereof, the Company shall have the alternative right, instead of assuming charge of the entire work, to place additional forces, tools, equipment, and materials on parts of the work for the purpose of carrying on such parts of the work, and the cost incurred by the Company in carrying on such parts of the work shall be payable by the Contractor, and such work shall be deemed to be carried on by the Company on account of the Contractor, and the Contractor shall be allowed therefor the contract price. The Company may retain the amount of the cost of such work, with ..... per cent. added, from any such sum or sums due or to become due the Contractor under this agreement.

In case of annulment for neglect, the burden of proof will be upon the Company to establish the neglect.

In 33 (*b*) it may be wise to make the reading in the third and fourth lines as follows:

A. provide labor, materials, tools and appliances, by contract or otherwise, and deduct, etc.

as is done in several forms as to carrying on the work by Contract or otherwise. The desired action is probably included in the clause "employ such forces as may be necessary to complete the work," but a more specific statement has some value.

The following form includes many features common to a number in use and in somewhat different phraseology from that given above:

B. If the work to be done under this contract shall be abandoned by the Contractor, or if this contract or any part thereof shall be assigned or the work sub-let by him without the previous written consent of the City, or if at any time any official of the City or employee thereof shall become directly or indirectly interested in this contract or in furnishing the supplies or performing the work thereunder, or in any portion of the profit thereof; or if at any time the City shall be of the opinion that the performance of the contract is unnecessarily or unreasonably delayed, or that the Contractor is wilfully violating any of the provisions of this contract; or if

the work be not fully completed within the time named in this contract; then, and in any such case, the City may notify the Contractor in writing to discontinue all work or any part thereof, and thereupon the Contractor shall discontinue the work or such part thereof as may be designated, and the City may thereupon according to law enter upon and take possession of the work or part thereof, complete, or cause the same to be completed, and charge the entire expense of so completing the work or part thereof to the Contractor; and for such completion, the City for itself or for its Contractors may take possession of and use or cause to be used any materials, machinery or tools of every description provided by the Contractor for the purposes of this work, and may procure or cause to be procured other materials, machinery or tools for the completion of the work, and charge the cost and expense thereof to the Contractor.

All expenses, including those of re-letting, incurred and charged under these clauses or by virtue of this contract, shall be deducted and paid by the City out of any moneys then due or to become due the Contractor under and by virtue of this contract or any part thereof. In case such expense shall exceed the amount which would have been payable under the contract if the same had been completed by the Contractor, the Contractor or his sureties shall pay the amount of excess to the city; but should such expense be less than the amount payable under this contract had the same been completed by the Contractor, he shall receive the difference, after deducting the amount retained as hereinafter specified, but shall not be entitled to damages for not being allowed to complete the work himself.

It is not feasible to include the various readings, which are mostly long. Some special features and wordings may, however, be of interest and value; for example:

C. Thereupon the said Board shall have the power to, and may at the cost of said Contractor, either complete the said work by contract or itself do the work provided for hereunder by employing such men and teams, and by purchasing or otherwise obtaining such materials, supplies, machinery, implements, tools, and plant as the said Chief Engineer shall deem necessary . . . and may use . . . such materials . . . as may be the property of said Contractor, and may make the necessary repairs and replacements thereto, etc.

D. When any particular part of the work is being carried on by the Board, by contract or otherwise, under the provision of this article of the contract, the Contractor shall continue the remainder of the work in conformity with the terms of this contract, and in such manner as in no wise to hinder or interfere with the persons or workmen employed, as above provided, by the Board, etc.

Another form gives the right:

E. To use such implements, tools and materials of every description as may be found upon the site of said work, and to procure other tools and materials for the completion of the same.

Other forms provide for taking over the work:

F. If the Contractor shall become insolvent or bankrupt, or if his property or affairs shall be put in the hands of a receiver or receivers.

G. If the Contractor shall lose control of said work for any cause whatsoever except by act of God or the public enemy, or if the Contractor shall refuse or neglect to follow the instructions of the Engineer.

H. If in the opinion of the Chief Engineer the Contractor is guilty of carelessness or incompetency in the execution of the work.

Another phrase in common use is:

I. Or is not executing the work in good faith.

A sewer Contract form provides that the Board:

J. May take possession of . . . materials, animals, machinery, implements, centers, forms and tools of every description.

Another provision is that in case of taking away work:

K. The Board shall not be held to obtain the lowest figure for the work of completing the contract.

It should be remembered that the provision requiring this in the original letting is for the benefit of the taxpayer and not of the Contractor.

Another uses the words:

L. Employ such persons and obtain such appliances and tools, etc.

One Contract form provides that:

M. The Board shall have a lien upon all the materials, supplies, machinery, implements and tools of the Contractor.

This provision may be important in case of financial inability of the Contractor and possible attachment of his property. From this standpoint it would be wise to add:

N. Such lien to attach at the time of notice by the Chief Engineer to the Contractor to improve his execution of the contract.

This additional provision would not hinder at all the Contractor's performance, but would prevent any action by him to place his plant beyond the control of the City or railroad after notification.

With relation to the clause providing for the payment by the Contractor for the work done by the railroad or City under this section, the following readings are of interest:

O. Such expense to be paid by the Contractor shall not exceed the amount of the security for the performance of this contract.

P. Such excess shall not exceed the amount owed by the Board, under this contract, at the time the Contractor is notified to discontinue said work, or any

part thereof, plus the amount of the bond executed by the Contractor for the performance of the contract.

Such provisions are omitted in many forms.

In one form in use, however, provision is made even for selling all the plant of the Contractor to cover any excess of cost.

The phrase "neglecting to remedy imperfections" in the Uniform Contract Form is unusual, but rather desirable. The opportunity given the Contractor to mend his ways after notice is also desirable and in the line of fair play.

The clause relating to any City employee becoming directly or indirectly interested in the Contract seems desirable in City Contracts; it is inapplicable for railroads. Specifying "the power and duty" of the Chief Engineer to notify, is a definite and wise provision. An alternative provision is as follows:

Q. Or if at any time the Chief Engineer shall be of the opinion and shall so certify in writing to the Board, that the conditions ..... are not fulfilled etc. ..... the Board may notify the Contractor.

Here the Board notifies, rather than the Chief Engineer.

34. (a) ANNULMENT WITHOUT FAULT OF CONTRACTOR. The Company shall have the right at any time, for reasons which appear good to it, to annul this contract upon giving thirty days' notice in writing to the Contractor, in which event the Contractor shall be entitled to the full amount of the estimate for the work done by him under the terms and conditions of this contract up to the time of such annulment, including the retained percentage. The Contractor shall be reimbursed by the Company for such expenditures as in the judgment of the Chief Engineer are not otherwise compensated for, and as are required in preparing for and moving to and from the work; the intent being that an equitable settlement shall be made with the Contractor.

(b) NOTICE — HOW SERVED. Any notice to be given by the Company to the Contractor under this contract shall be deemed to be served if the same be delivered to the man in charge of any office used by the Contractor, or to his foreman or agent at or near the work, or deposited in the postoffice, postpaid, addressed to the Contractor at his last known place of business.

(c) REMOVAL OF EQUIPMENT. In case of annulment of this contract before completion from any cause whatever, the Contractor, if notified to do so by the Company, shall promptly remove any part or all of his equipment and supplies from the property of the Company, failing which the Company shall have the right to remove such equipment and supplies at the expense of the Contractor.

The provision allowing the Company to annul the Contract without fault or default on the part of the Contractor is unusual except in railroad Contracts, where it has not been unusual to have a change of policy in relation to construction.

Whether this clause is fair to the Contractor is doubtful. There is an apparent intent to treat him fairly. Some Contractors, not without reason, think that anticipated profits should be included. The Contractor may have had, at the time he bid, opportunity for another profitable Contract, which he turned down. Anticipated profits, however, are difficult to estimate, and if allowed and paid, the Contractor may promptly secure another equally favorable Contract and so double his profits.

In case of annulment without fault of the Contractor, there may be some doubt whether, after the transaction is closed, the decision of the Chief Engineer ought to be made final as to the allowance to be made to the Contractor. Any question as to maintaining control of the work is now eliminated. It is possible that arbitration may be appropriate in this case if agreement is not reached. Engineers who incline to look favorably on arbitration may find it desirable here, even if undesirable in general. The expense and other unsatisfactory features of arbitration will lead other Engineers to reject arbitration even here. Most Companies and their Chief Engineers would probably insist on restricting any award so that anticipated profits should not be allowed. Cases of annulment are probably rare except in railroad work where the Contractor has knowledge, at the time of making his bid, of the possibility or probability of such action, so that the risk in its occurrence, as a practical matter, would usually be slight.

The difficulty of determining the reimbursement proper in any case is due in considerable part to a faulty system of bidding. In many Contracts there is a large expense for establishment, temporary structures, depreciation on plant, and other overhead charges. The direct unit cost of the various items in the Proposal can be closely computed in advance. Upon each of the items, however, must be saddled a part of these overhead charges. The Contractor, probably wisely, often puts a larger proportion on those items on which monthly payments will be made earliest or upon those which are likely to be increased in amount. A system of bidding is desirable which will allow a direct bid on establishment, etc.; this will tend to cure the difficulties due to annulments, and the somewhat similar troubles due to increase or decrease of quantities from those forming the basis of the Proposal. It will also give better control over unbalanced bids.

Section 34 (*b*) seems not appropriate as a part of a section on annulment. It is general in character, applying to all notices to the Contractor.

It seems questionable whether notice " to the man in charge of any office used by the Contractor " is notice to a man of sufficient responsibility, in the important case of the annulment of a Contract, and the same is true of " his foreman." Either the notice should be mailed to the Contractor's

address, or the Contract should require him to specify an agent, manager, or foreman upon whom notice should be served.

Whatever be the requirements as to notice or the like, they should be scrupulously followed. The annulment is for the benefit of the Company, and the courts would be likely to insist upon thorough compliance with the terms not only as to notice, but also as to the report of the Chief Engineer with relation to reimbursement, which should be a formal written report.

The following reading applies to notices:

A. The address given in the bid or proposal upon which this contract is founded is hereby designated as the place where all notices, letters and other communications to the Contractor shall be mailed and delivered. The delivering at the above named place or depositing in a post-paid wrapper directed to the above place, in any post-office box regularly maintained by the post-office, of any notice, letter, or other communication to the Contractor, shall be deemed sufficient service thereof upon the Contractor, and the date of such service shall be the date of such delivery or mailing. Such address may be changed at any time by an instrument in writing executed and acknowledged by the Contractor and delivered to the Board. Nothing herein contained shall be deemed to preclude or render imperative the service of any notice, letter or other communication upon the Contractor personally.

A somewhat more condensed clause is suggested for consideration:

B. Notice may be given either by delivery to some agent or person who has been designated in writing by the Contractor for that purpose; or by mailing the notice to the address given by the Contractor in his bid, or to a later address in writing delivered to the Board for that purpose. The date of notice shall be the date of delivery or of mailing. Delivery or mailing of notice to any partner shall be notice to the partnership. If the Contractor is a corporation it shall specify in writing the officer or person upon whom notice shall be served.

There is a difference between notice and instructions, and a clause similar to that below should be added to the clause as to notice:

C. The Contractor shall employ suitable superintendents and foremen to represent him at different parts of the work, and they shall receive and obey orders from the Engineer.

Another more elaborate reading follows:

D. Orders and directions may be given orally by the Engineer to, and shall be received and promptly obeyed by, the Contractor or his representative or any superintendent, overseer or foreman of the Contractor who may have charge of the particular work in relation to which the orders or directions are given, and a confirmation in writing of such orders or directions will be given to the Contractor by the Engineer if so requested. The Contractor or his duly authorized representative shall be present at all times on the work to receive orders and directions from the Engineer.

This seems to have no special advantage unless it be the written order if requested. In the case of a written order it should be made clear whether "extra work" is intended.

35. FAILURE TO MAKE PAYMENTS. Failure by the Company to make payments at the times provided in this agreement shall give the Contractor the right to suspend work until payment is made, or at his option, after thirty (30) days' notice in writing, should the Company continue to default, to terminate this contract and recover the price of all work done and materials provided and all damages sustained, and such failure to make payments at the times provided shall be a bar to any claim by the Company against the Contractor for delay in completion of the work due to such suspension or failure to pay.

36. MONTHLY ESTIMATE. So long as the work herein contracted for is prosecuted in accordance with the provisions of this contract, and with such progress as may be satisfactory to the Chief Engineer, the said Chief Engineer will on or about the first day of each month, make an approximate estimate of the proportionate value of the work done and of material furnished or delivered upon the Company's property at the site of the work, up to and including the last day of the previous month. The amount of said estimate, after deducting ..... per cent. and all previous payments, shall be due and payable to the Contractor at the office of the Treasurer of the Company on or about the ..... day of the current month.

These two sections may be considered together. The provision for monthly estimates may properly precede the provision as to the failure to pay.

Considering Section 36, it seems that a definite date for payment should be stated if the Contractor is to have a right to suspend work for non-payment. The estimate made "on or about" the first of the month is reasonable although indefinite, but the payment should be due at some specific time.

In the third line there should be added, after "make," the words "and approve," so that the reading will be:

A. The Chief Engineer will . . . make and approve an approximate estimate.

The moneys will not then be due without such approval. Under the reading of Section 36, such approval will depend upon prosecution "in accordance with the terms of this Contract" combined with "satisfactory progress." Before commenting upon this feature other readings may be cited:

B. In order to assist the Contractor to prosecute the work advantageously the Engineer shall, from time to time as the work progresses, but not more often than once a month, make in writing an estimate, such as in his opinion shall be just and fair, of the amount and value of the work done and materials incorporated in the

work by the Contractor according to the terms of this contract (but it is understood that in making such estimates the Engineer shall not necessarily be governed by the prices contained in the Schedule), provided, however, that estimates may at any time be withheld or reduced if, in the opinion of the Engineer, the work is not proceeding in accordance with this contract.

Such estimates shall not be required to be made by strict measurement, but they may be made by measurement or by estimation or partly by one method and partly by the other, and it shall be sufficient if they are approximate only.

Upon each such estimate being made and certified in writing to the Commission, the Commission shall prepare and certify a voucher for ninety per centum (90%) of the amount stated in such estimate.

It is common to specify either 85 per cent or 90 per cent; 87½ per cent is used in one case.

Another reading covering monthly estimates is this:

C. The Engineer shall once a month make an approximate estimate in writing of the amount of work done and of the relative value thereof, according to the terms of this contract, and he may make allowance in said monthly estimates on account of the work covered thereby being more or less difficult than the average. And it is agreed that said estimates may be withheld or diminished when the work is not carried on in accordance with the provisions of this contract.

And the following is similar:

D. Estimates may at any time be withheld or reduced if, in the opinion of the Engineer, the work is not proceeding in accordance with this contract.

The provision for reducing or withholding estimates is not unusual. Nevertheless it seems somewhat drastic and illogical. It looks like a club held over the Contractor, and is, in essence, a penalty, although, as a regulation of times of payment, a court probably would not so regard it. The logical remedy for failure to properly carry on the work is to take the work away as provided in Section 33.

In one of the readings above the partial payments are "to assist the Contractor to prosecute the work advantageously." A withholding has a contrary effect.

If the Contractor's failure to carry on the work satisfactorily is due in any part to financial weakness, withholding or reducing the estimate may bankrupt him, and this will not be to the advantage of the railroad or City. There should be no reduction unless to cover work performed unacceptably or to protect workmen. A provision to the following effect may be introduced if it seems desirable:

E. Work not performed acceptably may be excluded in whole or in part from monthly estimates. All monthly estimates are provisional and shall not be construed as an acceptance of any part of the work.

Another reading of the latter part is:

F. The payment of monthly estimates shall not in any respect be taken as an admission that the work is done or that its quantity or quality is satisfactory, nor as a release of the Contractor from responsibility in respect thereof, but the whole work and all particulars relating thereto shall be subject to revision and adjustment by the City at the time of final acceptance and the payment of the final estimate.

G. Monthly payments shall not be an acceptance of the work done, and no work shall be accepted until the work contracted for is fully completed, or as provided otherwise in these specifications.

H. But if at any time after such monthly payments have been made it shall be found that any of the work included in the estimates on which such payments have been made has been performed in an unworkmanlike manner or contrary to these specifications, the Engineer shall direct the Contractor to take down and rebuild such work in the manner required by the specifications, and no further payment on this Contract shall be made until such directions have been in all respects complied with.

Section 35 is unusual in Contracts, but shows some recognition of the rights of the Contractor. He is entitled to his pay, and properly to the pay for 85 per cent of all work acceptably performed. A reduction for any part of the work wholly or in part not acceptable is, however, proper.

The first line of Section 35 should read:

I. If the Company shall fail to make payments of moneys due at the times provided in this agreement, unless on account of restraint by legal process, the Contractor shall have the right to suspend work, etc.

The moneys should be " due " and they will not be due until the estimates are approved by the Engineer. The Contractor certainly should not have the right to withdraw from the Contract for non-payment of moneys on perhaps the tenth of every month unless the moneys are " due," for which the Chief Engineer's approval is necessary. Withholding the money for adequate cause should not give the right to withdraw to the Contractor. Neither should a failure to make satisfactory progress prevent the Contractor from receiving any payment properly due and from exercising his rights as to withdrawal in consequence of a failure to pay. A fair balance of rights should exist.

Another form in use provides for payment of interest in case of any delay in payment:

J. Such payment of interest, if any, to be in lieu of any claim by the Contractor for alleged damages for breach of contract or otherwise in case of delayed payments.

This provision is regarded unfavorably by Contractors. When the Contractor has arranged his finances in the expectation of receiving his

monthly estimate, it may be extremely inconvenient to re-finance, and in cases where the Contractor's resources are not extensive, withholding the monthly estimate may prove a serious matter. The Company or City should obligate itself to pay.

Municipalities should also appreciate the importance of making payments according to the Contract provisions. In one case a Contractor who had a losing Contract found it very convenient to notify the City that because of its failure to make payments as required, the Contract was broken, and no further work would be done under it. Under Section 35, however, thirty days notice to the City would be necessary before withdrawal from work by the Contractor.

K. The Board may, if it seems expedient so to do, cause estimates to be made more frequently than once a month, and it may cause payments to be made more frequently to the Contractor.

The same Contract also provides that the Board may at its option reserve less than the 15 per cent specified.

In a slightly different form and more concisely, it has been provided:

L. At the option of the Board, estimates may be made more frequently and a smaller amount may be retained than as aforesaid.

M. The City shall retain 15 per cent of such estimates as part security for the fulfilment of this contract by the Contractor.

In one case, on an extensive Contract, the clause reads:

N. When the 10 per cent thus reserved shall have amounted to $450,000, thereafter the City shall pay the total amount of each estimate.

On the same Contract it is provided that no monthly estimate shall be rendered unless the work is increased in amount by at least $25,000. Other Contracts of a different sort in another City have a similar provision with the amount $300.

It seems desirable that monthly estimates should be proportionate to the value of the work done, for example:

O. And said Engineer may make such allowance in said monthly estimates as he may deem reasonable on account of the work having been more or less difficult than the average of this contract.

This is an entirely proper provision, and might be added to Section 36. The word "proportionate" in that section probably covers the point, but Engineers might not always so interpret it.

Occasionally a Contract provides for weekly payments.

Provision is sometimes made for a schedule of partial payments; for

instance, for 50 per cent of unit price when structural material is delivered, and for other specified percentages during the progress of work. On the other hand, a clause like the following is sometimes used:

P. In making such estimates, the Engineer shall not take into consideration any materials on hand which have not been placed in the improvement.

For some Contracts this is, probably, a reasonable provision. In others the assembling of materials constitutes a very important part of the Contract, and a special clause should be added covering payments on deliveries of material. For most Contracts it would be proper to make an allowance for material on hand and on the work.

37. ACCEPTANCE. The work shall be inspected for acceptance by the Company promptly upon receipt of notice in writing that the work is ready for such inspection.

38. FINAL ESTIMATES. Upon the completion and acceptance of the work the Chief Engineer shall execute a certificate over his signature that the whole work provided for in this agreement has been completed and accepted by him under the terms and conditions thereof, whereupon the entire balance found to be due to the Contractor, including said retained percentage, shall be paid to the Contractor at the office of the Treasurer of the Company within . . . . . days after the date of said final certificate. Before the time of payment of said final estimate the Contractor shall submit evidence satisfactory to the Chief Engineer that all payrolls, material bills and outstanding indebtedness in connection with this work have been paid.

Section 37 is not to be found in most Contracts. One form has an equivalent as follows:

A. A final inspection shall be made of the work when the Contractor notifies the Commission in writing that it has been completed. If the work is found to be complete in accordance with these specifications it shall finally be accepted by the City.

Most Contracts fail to provide for acceptance when notified by the Contractor of his readiness for inspection. The provision seems desirable as a recognition of the right of the Contractor in this particular.

Another reading for Section 38 is shown below:

B. The Chief Engineer shall, as soon as practicable after the completion of this contract, make a final estimate of the amount of work done thereunder and the value of such work, and the City shall within . . . . . days after such estimate is so made and is approved by the Board, pay the entire sum so found to be due hereunder, after deducting therefrom all previous payments and all amounts to be kept and all amounts to be retained under the provisions of this contract. All prior partial estimates shall be subject to correction in the final estimate and payment.

C. Whenever, in the opinion of the Chief Engineer, the Contractor shall have completely performed this contract on his part, the Chief Engineer shall so certify, in writing to the Board, and his certificate shall state, from actual measurements, the whole amount of work done by the Contractor, and also the value of such work under and according to the terms of the contract.

All prior certificates upon which partial payments may have been made, being merely estimates, shall be subject to correction in the final certificate, which final certificate may be made without notice thereof to the Contractor, or of the measurements upon which it is based.

D. Whenever (etc., then) the Engineer shall proceed with all reasonable diligence to inspect and measure the work and shall make out the final estimate for the same and shall certify etc., . . . provided that nothing herein contained shall be construed to affect the right of the Board, hereby reserved, to reject the whole or any portion of the aforesaid work should the certificate be found, or known to be inconsistent with the terms of this agreement or improperly given.

Another reading of the final clause is this:

E. Before the final payment is made, the Contractor shall show to the City satisfactory evidence that all just liens, claims and demands of his employees, or of parties from whom materials used in the construction of the work may have been purchased or procured, are fully satisfied, and that the materials furnished and the work done are fully released from all such liens, claims and demands.

The City probably is protected in this regard by the Bond, but the provision above is reasonable and appropriate.

Section 17 also provides as to liens, but does not require evidence from the Contractor as Section 38 does.

Another Contract form provides for the payment of the final estimate as follows:

F. Excepting such sum or sums as may lawfully be retained by said City.

This seems desirable in view of Section 17, which relates to liens and claims, and it could properly be introduced, after the words " final certificate," in line 7 of Section 38.

There should be added to Section 38, after " conditions thereof," in the fourth line, the words:

G. and shall make and approve the final estimate of the work.

Line 7 should read:

H. Before the approval of the final estimate,

instead of

Before the time of payment of said final estimate.

This agreement shall inure to the benefit of and be binding upon the legal representatives and successors of the parties respectively.

In Witness Whereof, the parties hereto have executed this agreement in ..... the day and year first above written.

WITNESS: .....

.....

This conclusion of the Contract is somewhat different in form from that used in other Contracts, but it seems complete and effective.

In the case of one public Board, nothing is said about successors of the Board, but this provision is made:

A. This agreement shall be binding upon the heirs and legal representatives of the said Contractor.

As the Contractor may be a corporation without heirs, the Uniform Contract Form reading, "legal representatives and successors," seems more appropriate.

The reference to successors is often placed at the beginning of the contract in this clause:

B. **Witnesseth,** That the parties to these presents, each in consideration of the covenants and agreements on the part of the other, herein contained, do hereby covenant and agree, the party of the first part for itself, and the party of the second part for ..... and ..... heirs, executors and administrators, successors and assigns, as follows:

The following concluding clause sufficiently explains itself:

C. **In Witness Whereof,** this contract has been executed for **The City of New York** by the **Public Service Commission for the First District** under and by virtue of a resolution duly adopted by the Commission and the seal of the Commission has been hereto affixed and attested by its Secretary and these presents have been signed by its Chairman; and the Contractor * has (hereunto set ..... hand . . . and seal . . .) . . . (caused . . . corporate seal to be hereto affixed and these presents to be executed by proper officers) the day and year first above written.

THE CITY OF NEW YORK

By the

PUBLIC SERVICE COMMISSION FOR THE FIRST DISTRICT

By.....
Chairman

Attest .....
Secretary

* If the Contractor be an individual, use the words inclosed in the first bracket; if a corporation, use the words inclosed in the second bracket.

Sometimes the concluding clause refers to duplicate or other additional Contracts. The following forms are examples:

D. **In Witness Whereof,** the Sewerage Commission of ..... has hereunto set its hand and seal and the Contractor has also set his or their hands and seals; and the Commission and the Contractor have executed this agreement in duplicate, one part to remain with the Commission and the other to be delivered to the Contractor, the ..... day of ..... in the year one thousand nine hundred and .....

E. **In Witness Whereof,** the said parties of the first part have hereunto, and to three other original agreements of like tenor and date, set their Corporate Seal, and have caused the same to be signed by a majority of the said Commissioners, and the party of the second part have hereunto, and the three other original agreements of like tenor and date, set their hands and seals, the day and year first above written.

The third copy is commonly deposited with the Auditor; a fourth is unusual. All being originals, either one is competent evidence.

A rather unusual clause is this:

F. **In Witness Whereof,** the said parties have hereunto set their hands and seals, the Commonwealth executing these presents by its said Board (naming them) who incur no personal liability by reason of the execution hereof or anything herein contained, on this ..... day of ..... A.D. 191..

Specifying exemption from liability is probably unnecessary.

The following includes certificates of City Officers, to be signed before the Director signs the Contract on behalf of the City. These formalities may be required by law, or may be only a requirement by the Director.

G. **In Witness Whereof,** the parties to this agreement have hereunto set their hands and seals.

Dated the day and year first herein written.

THE CITY OF.....

By.....
Director of Public Service.

Attest.....
Secretary Department of Public Service.
Party of the First Part.

Contractor .....
Party of the Second Part.

Approved as to form.....City Attorney.
Certified as to funds.....Director of Finance.
Approved by.....City Manager.

Fund.....

CHAPTER XVII

ADDITIONAL CONTRACT FORMS

In addition to the clauses found in the Uniform Contract Form, treated at length in the preceding chapter, there are others, some important and others interesting and suggestive, which Engineers may desire to use. For convenience of reference these additional clauses will be arranged in classes with section numbers and letters beginning with Section 50.

50. The Contractor shall keep himself fully informed of all existing or future State and federal laws, and of all municipal ordinances, prohibitions, rules and regulations in any manner affecting the conduct of the work, and of all orders or decrees of any body or tribunal having any jurisdiction or authority over the materials, times, places and actions of those employed in the work embraced in this contract. If any discrepancy or inconsistency is discovered in the plans, drawings or specifications or contract for this work in relation to any such act, ordinance, prohibition, rule, regulation, order or decree, he shall forthwith report the same to the Engineer in writing. The Contractor shall at all times observe and comply with, and shall cause all his agents and employees to comply with all said existing and future acts, ordinances, prohibitions, rules, regulations, orders, and decrees; and shall protect and indemnify the City, the Commission, the Engineer, and their employees against any and all claims arising from or based on any violation of such acts, ordinances, prohibitions, rules, regulations, orders or decrees, and against all violations of law by the Contractor or his agents or employees. He shall also procure and pay for all licenses or permits required in the prosecution of any part of the work embraced in this contract.

It is doubtful whether this clause is in any way essential, although it is not uncommon. The Contractor, irrespective of this, is required to know the law and to observe it. The provision in Section 15 that the Contractor shall indemnify the railroad or the City seems sufficient. Nevertheless this clause does call special attention to this particular matter.

Another reading is:

A. In all the operations connected with the work herein specified, all city or town ordinances, and all laws controlling or limiting in any way the actions of those engaged on the works, or affecting the materials applied to them, must be respected and strictly complied with; and no work, except in case of necessity, of which the Engineer shall be the judge, shall be carried out on Sunday.

The reference to Sunday is rather unusual. Requiring the judgment of the Engineer as to necessity has some value, but it should be understood that the judgment of the Engineer may not be sustained by the court if an arrest be made or an injunction asked for, although the Contractor is bound by it. The Engineer has no power to override the law.

Other readings are these:

B. In all operations connected with the Work, all ordinances of the City, and of the Board of Health, so far as they may be valid and operative with respect thereto, and all laws of this State which are now applicable to and control or limit in any way the actions of those engaged in the work or affecting the materials belonging to them, shall be respected and strictly complied with, and the Contractor shall further strictly comply with all applicable Federal, State and Municipal regulations regarding the transportation in and around the City and Harbor, of materials used in, or in connection with the work.

C. The said Contractor hereby agrees to carry on all the work provided for in this contract in strict conformity with the requirements of the law under which The Sanitary District of Chicago is organized, entitled, "An Act to create Sanitary Districts and to Remove Obstructions from the Desplaines and Illinois Rivers," approved May 29, 1889, in force July 1, 1889, and all amendments thereto.

Some States have statute requirements that certain clauses relating to labor shall be included in all State, and in certain municipal Contracts, under a penalty for not writing them into the Contract. The Commissioner, or the City Engineer, or Chief Engineer must know these laws.

The following provision results in whole or in part from the requirements of the statutes in Massachusetts:

51. In the employment of mechanics and laborers on the work to be done under this contract preference shall be given to citizens of the Commonwealth, and, if they cannot be had in sufficient numbers, then to citizens of the United States (Chapter 311 of the Acts of 1904). No employee shall be required to lodge, board or trade at a particular place or with a particular person. (Revised Laws, chapter 106, section 13.) No laborer, workman or mechanic in the employ of the Contractor, sub-contractor or other person doing or contracting to do the whole or any part of the work contemplated or included in this contract shall be required to work more than eight hours in any one calendar day. (Chapter 517 of the Acts of 1906.)

A. Local Labor: Local labor shall be employed upon this work in so far as may be possible, and shall be given preference over all other labor.

B. Said Contractors further covenant and agree that no laborer, workman or mechanic working within this Commonwealth in the employ of said Contractor, a sub-contractor, or other person, doing or contracting to do the whole or a part of the work contemplated by this contract shall be requested or required to work more than eight hours in any one calendar day.

A similar provision from another State reads:

C. The Contractor agrees to comply with the provisions of the Labor Law, including Section Three thereof as re-enacted by Chapter 36 of the Laws of 1909. The Contractor further agrees and stipulates that no laborer, workman or mechanic in the employ of the Contractor, sub-contractor or other person doing or contracting to do the whole or a part of the work contemplated by this contract, shall be permitted or required to work more than eight hours in any one calendar day, except in cases of extraordinary emergency caused by fire, flood or danger to life or property; and further that the wages to be paid for a legal day's work as hereinbefore defined to all classes of such laborers, workmen or mechanics upon the work contemplated by this contract or upon any material to be used upon or in connection therewith, shall not be less than the prevailing rate for a day's work in the same trade or occupation in the Borough of the City where the work hereby contemplated, about or in connection with which such labor is performed, is in its final or completed form to be situated, erected or used; and that each such laborer, workman or mechanic employed by the Contractor or by any sub-contractor or other person on, about or upon the work contemplated by this contract, shall receive such wages herein provided for. This contract shall be void and of no effect, unless the Contractor shall comply with the provisions of this section. In obedience to the requirements of Section Fourteen of the Labor Law it is further provided that if the provisions of the said Section Fourteen are not complied with, this contract shall be void.

Apparently there is no penalty on the Contractor except that the Contract becomes void. Will the courts construe this literally, and simply declare the Contract void in case of a losing Contract, where the Contractor purposely violates this Contract provision? Any citizen would probably have a right to bring the action to have the Contract declared void, and the citizen might be a good friend of the Contractor. The provision should be, in form, that a failure to observe these requirements should constitute a breach of Contract.

D. Said Contractor or his agents or employees shall not, directly or indirectly, make it the condition of the employment of any person that he shall lodge, board or trade at any particular place or with any particular person; but every employee on the work to be done under this contract shall have full liberty to lodge, board and trade wheresoever and with whomsoever he may choose.

E. The Contractor shall punctually pay his employees who shall be engaged on the work covered by this contract, in cash and not in scrip, commonly known as store money orders, and he shall not directly or indirectly conduct or carry on what is commonly known as a company store if there shall at the time be any store selling supplies within two miles of the place where this contract is being executed.

52. It is the intent and understanding of the parties to this contract that each and every provision of law required to be inserted in this contract should be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is to be deemed to be inserted herein; and if, through mistake or otherwise, any

such provision is not inserted or is not inserted in correct form, then the contract shall forthwith, upon the application of either party, be amended by such insertion so as to comply strictly with the law, and without prejudice to the rights of either party hereunder.

A. If this contract contains any unlawful provision not an essential part of the general structure of the contract and which shall not appear to have been a controlling or very material inducement to the making thereof, the same shall be deemed of no effect, and shall upon the application of either party, be stricken from the contract without affecting the binding force of the contract as it shall remain after omitting such provision.

The last provision is quite unusual, but is abundantly safe. Probably unlawful provisions are seldom included in Contracts of this sort.

Along the lines of Workmen's Compensation Acts, insurance against accidents to employees becomes important and in some States appears to be compulsory. The following provisions are in point:

53. The Contractor further agrees to insure to his employes or their beneficiaries the necessary first aid, medical, surgical and hospital services, and the compensation provided for in the Act of the General Assembly of the State of Illinois, entitled "An Act to promote the general welfare of the people of this state by providing compensation for accidental injuries or death suffered in the course of employment within this state; providing for the enforcement and administering thereof, and a penalty for its violation, and repealing an Act entitled 'An Act to promote the general welfare of the people of this state by providing compensation for accidental injuries or death suffered in the course of employment,' approved June 10, 1911, in force May 1, 1912," approved June 28, 1913, in force July 1, 1913, as amended by an Act of the General Assembly of the State of Illinois, in force July 1, 1915, and further agrees to indemnify, keep and save harmless said Sanitary District from all claims, judgments, awards and costs which may in any wise come against said Sanitary District by reason of any accidental injuries or deaths suffered by any of his employes in and about the performance of this contract.

A. The Contractor agrees to take out and maintain, at his own expense, insurance against damages arising from injury to his employees in accordance with Chapter 751 of the Acts of 1911 and any amendments thereof and to comply with all the requirements thereof.

B. The Contractor agrees to take out and maintain, at his own expense, insurance against accidents, in companies in good standing in Massachusetts, for a sum satisfactory to the Commission, to be held and applied, in case of loss, in payment or satisfaction of all claims and suits for or on account of any injuries or damage to person or property received or sustained by any person or persons upon or in consequence of or in connection with the work embraced in this contract, and to furnish satisfactory evidence to the Commission, whenever requested, that the said amount of accident insurance is in force.

Among laws to be observed are patent laws, and the following clause is sometimes introduced, although Section 15 of the preceding chapter seems to make this quite unnecessary:

54. The Contractor shall hold himself responsible for any claims made against the City for any infringement of patents by the use of patented articles in the construction and completion of the work, or any process connected with the work agreed to be performed under this contract or of any materials used upon the said work, and shall indemnify and save harmless the City for all costs, expenses and damages which the City shall be obliged to pay by reason of any infringement of patents used in the construction and completion of the work.

If a specific article is required by the City, and the claim or suit is due to such requirement, the Contractor ought not to be held liable for infringement of patents. He should have competent legal advice before signing a Contract with this clause included, if he has reason to believe infringement of patents is involved.

Somewhat along the lines of precaution and safety are provisions for sanitary conveniences. The Uniform Contract Form for railroad construction may not need such provisions. In settled communities something of the sort appears necessary. The following clauses have been in use:

55. Suitable and satisfactory buildings shall be provided by the Contractor for the housing, feeding and sanitary necessities of the men, and suitable stabling for the animals employed upon the work. Such buildings shall be located at approved places.

A. The Contractor shall provide at places approved by the Engineer suitable and sufficient sanitary conveniences for the use of all workmen employed upon this work and they shall be exclusively used by all workmen. Should polluting material be deposited in any part of the work, the Contractor shall at once clean up the material to the satisfaction of the Engineer. Any workman making such pollution shall be forthwith discharged and not again employed upon the work.

B. Necessary sanitary conveniences for the use of laborers on the work, properly secluded from public observation, shall be constructed and maintained by the Contractor in such manner and at such points as shall be approved, and their use shall be strictly enforced.

The following clauses relate to the arrangement and progress of the work, and some of the features are not included in the Uniform Contract Form:

56. Before beginning work the Contractor shall prepare a program of construction which shall be made satisfactory to the City. It shall show the order and time at which the various parts of the work are to be done, the progress of the work month by month, and the methods of construction to be employed. The program may be modified only with the approval of the City, and carrying out the work in accordance with it shall be considered an obligation of the contract.

A. Before beginning any portion of the work the Contractor shall state what method he is to employ and the order of his operations and shall give the Engineer due notice and ample time for making the necessary detail plans for that portion.

The plans are intended to give approximately the line, grade and shape of the structure, typical details, etc., but the exact determination of all these is to be made from time to time by the Engineer.

B. The order or sequence of execution of the work, the amount of trench to be open at any time, etc., and the general conduct of the work shall be subject to the approval and direction of the Engineer, which approval or direction shall, however, in no wise affect in the conduct of the work the responsibility of the Contractor.

C. The Contractor shall assume and have sole charge and possession of all the work included in this contract until the termination thereof, except as provided for in clause (*e*); and shall be solely responsible for the safe, proper and lawful conduct of the same. He shall commence the work and carry it on at such points and in such order of precedence, and in such times and seasons, as he may from time to time be directed by the Engineer. He shall furnish and put in place, free of charge, all grade planks and batter boards, and all large stakes and temporary structures necessary for making and maintaining points and lines given by the Engineer. He shall furnish all transportation, scaffolding, forms, apparatus, ways, works, machinery and plant requisite for the execution of this contract; and shall be solely answerable for the safe, proper and lawful construction, maintenance and use of the same.

From the Contractor's side there is objection to the provision for "furnishing and putting in place, free of charge, all grade planks and batter boards." It is an indefinite quantity for him to bid upon. It would properly be paid for as extra work.

D. Generally the Contractor will be permitted to conduct his work in the most expeditious manner possible, having due regard for the safety of persons and property and facilities for traffic and under such instructions as the Engineer may give from time to time.

E. The Contractor shall take all responsibility of the work, and take all precautions for preventing injuries to persons or property in or about the work; shall bear all losses resulting to him on account of the amount or character of the work, or because the nature of the land in or on which the work is done is different from what was estimated or expected, or on account of the weather, tides, elements, or other cause.

F. If at any time before the commencement, or during the progress of the work, the methods and appliances used or to be used appear to the Engineer to be inefficient or inappropriate for securing the quality of work required or the said rate of progress, he may order the Contractor to increase their efficiency or to improve their character, and the Contractor shall conform to such order; but the failure of the Engineer to demand an increase of such efficiency or improvement in character shall not relieve the Contractor from his obligation to secure the quality of work and the rate of progress established in the specifications.

The above clause applies in part to the provisions of Section 33 (*a*), but is in part different.

The following clauses may properly be shown here:

57. The rates of progress herein required have been purposely made low enough to allow for the ordinary delays incident to construction work of this character, and liberal times have been estimated for special delays at certain points. No extension of time will be made for ordinary delays and accidents incident to construction work of this character, and the occurrence of such will not relieve the Contractor from the necessity of maintaining these rates of progress.

In case of an extension by the Board, of the time for the completion of this Contract, a revised schedule of progress will be made in accordance with such extension of time.

The question has been raised whether the consent of the surety is necessary in case of an extension of time. The basis of the premium paid on Bonds, as has been stated, is now the amount of the Contract, and in general there is no time limit. The Uniform Contract Form provides that the Contractor shall indemnify and save harmless the Company against all claims, etc. Under this clause, a year or two after the Contract was physically completed a claim might be made for personal injuries sustained during the conduct of the Contract, and in consequence of it. The Contractor would be under obligation to indemnify the Company and the surety would also be liable on his Bond if the Contractor failed to indemnify. In a similar way, if there is no time limit on the Bond, the surety will be held for any provision of the Contract, such as for any ordinary delay or extension of time, as a matter of course. For any extraordinary extension of time, the surety will doubtless be held if such extension is authorized by the Contract. It may be advisable to notify the surety of any extraordinary extension of time. If such extension is due to additional work, and there is any question as to whether this additional work comes within the Contract as "extra work," the consent of the surety should be secured.

A. The Contractor hereby assumes the risk of the occurrence of delays in the prosecution and completion of the work embraced in this contract; and the amounts hereinbefore mentioned to be received by the Contractor in payment for the work include and cover that risk, and therefore the Contractor shall be entitled to no additional compensation on account of any such delays.

Although it is common to provide in the Instructions to Bidders, or in the Proposal, or in both, that the quantities specified are approximate, it seems desirable that the Contract should contain such a provision and thus be complete in itself. A suitable place for such a provision is immediately following the schedule of prices, but it may be put in any convenient part of the Contract.

The plans are intended to give approximately the line, grade and shape of the structure, typical details, etc., but the exact determination of all these is to be made from time to time by the Engineer.

B. The order or sequence of execution of the work, the amount of trench to be open at any time, etc., and the general conduct of the work shall be subject to the approval and direction of the Engineer, which approval or direction shall, however, in no wise affect in the conduct of the work the responsibility of the Contractor.

C. The Contractor shall assume and have sole charge and possession of all the work included in this contract until the termination thereof, except as provided for in clause (*e*); and shall be solely responsible for the safe, proper and lawful conduct of the same. He shall commence the work and carry it on at such points and in such order of precedence, and in such times and seasons, as he may from time to time be directed by the Engineer. He shall furnish and put in place, free of charge, all grade planks and batter boards, and all large stakes and temporary structures necessary for making and maintaining points and lines given by the Engineer. He shall furnish all transportation, scaffolding, forms, apparatus, ways, works, machinery and plant requisite for the execution of this contract; and shall be solely answerable for the safe, proper and lawful construction, maintenance and use of the same.

From the Contractor's side there is objection to the provision for "furnishing and putting in place, free of charge, all grade planks and batter boards." It is an indefinite quantity for him to bid upon. It would properly be paid for as extra work.

D. Generally the Contractor will be permitted to conduct his work in the most expeditious manner possible, having due regard for the safety of persons and property and facilities for traffic and under such instructions as the Engineer may give from time to time.

E. The Contractor shall take all responsibility of the work, and take all precautions for preventing injuries to persons or property in or about the work; shall bear all losses resulting to him on account of the amount or character of the work, or because the nature of the land in or on which the work is done is different from what was estimated or expected, or on account of the weather, tides, elements, or other cause.

F. If at any time before the commencement, or during the progress of the work, the methods and appliances used or to be used appear to the Engineer to be inefficient or inappropriate for securing the quality of work required or the said rate of progress, he may order the Contractor to increase their efficiency or to improve their character, and the Contractor shall conform to such order; but the failure of the Engineer to demand an increase of such efficiency or improvement in character shall not relieve the Contractor from his obligation to secure the quality of work and the rate of progress established in the specifications.

The above clause applies in part to the provisions of Section 33 (*a*), but is in part different.

The following clauses may properly be shown here:

57. The rates of progress herein required have been purposely made low enough to allow for the ordinary delays incident to construction work of this character, and liberal times have been estimated for special delays at certain points. No extension of time will be made for ordinary delays and accidents incident to construction work of this character, and the occurrence of such will not relieve the Contractor from the necessity of maintaining these rates of progress.

In case of an extension by the Board, of the time for the completion of this Contract, a revised schedule of progress will be made in accordance with such extension of time.

The question has been raised whether the consent of the surety is necessary in case of an extension of time. The basis of the premium paid on Bonds, as has been stated, is now the amount of the Contract, and in general there is no time limit. The Uniform Contract Form provides that the Contractor shall indemnify and save harmless the Company against all claims, etc. Under this clause, a year or two after the Contract was physically completed a claim might be made for personal injuries sustained during the conduct of the Contract, and in consequence of it. The Contractor would be under obligation to indemnify the Company and the surety would also be liable on his Bond if the Contractor failed to indemnify. In a similar way, if there is no time limit on the Bond, the surety will be held for any provision of the Contract, such as for any ordinary delay or extension of time, as a matter of course. For any extraordinary extension of time, the surety will doubtless be held if such extension is authorized by the Contract. It may be advisable to notify the surety of any extraordinary extension of time. If such extension is due to additional work, and there is any question as to whether this additional work comes within the Contract as "extra work," the consent of the surety should be secured.

A. The Contractor hereby assumes the risk of the occurrence of delays in the prosecution and completion of the work embraced in this contract; and the amounts hereinbefore mentioned to be received by the Contractor in payment for the work include and cover that risk, and therefore the Contractor shall be entitled to no additional compensation on account of any such delays.

Although it is common to provide in the Instructions to Bidders, or in the Proposal, or in both, that the quantities specified are approximate, it seems desirable that the Contract should contain such a provision and thus be complete in itself. A suitable place for such a provision is immediately following the schedule of prices, but it may be put in any convenient part of the Contract.

There are various readings:

58. It is further agreed that the quantities of work to be done and the materials to be furnished, as given in the accompanying Information to Bidders, are for the purpose of comparing, on a uniform basis, the bids offered for the work under the Contract.

A. These quantities are approximate only, being given as a basis for the uniform comparison of bids, and the City does not, expressly or by implication, agree that the actual amount of work will correspond therewith. An increase or decrease in these quantities shall not be regarded as sufficient ground for an increase or decrease in prices, nor in the time allowed for the completion of the work except as specifically provided hereinafter.

A more elaborate provision is shown below:

B. It is expressly understood and agreed that the quantities of the various classes of work to be done and materials to be furnished under this contract, specified in the Contractor's Proposal, are approximate and only for the purpose of comparing, on a uniform basis, the bids offered for the Work under this contract; and neither the City, nor the Commission, nor any member of the Commission, is to be held responsible that any of the said estimated quantities shall, by reason of inaccuracies, or changes in the Work, be found even approximately correct in the construction of the Work; and the Contractor shall make no claim for damage or anticipated profit, or for loss of profit, because of a difference between the quantities of the various classes of work actually done or materials actually delivered, and the estimated quantities stated in the Contractor's Proposal or because of the entire omission of any of the quantities of items stated in the Contractor's Proposal.

If a more concise clause is desired the following is suggested:

C. It is understood and agreed that the estimated quantities of the various classes of work or materials specified in the proposal are approximate and for the purpose only of comparing the bids on a uniform basis and the Contractor shall make no claim for damages for anticipated profit, or for loss, or otherwise against the City or any member of the Board because of any difference between said estimated quantities and the quantities actually done or furnished.

The following clause has been used:

D. The Contractor agrees that the estimated quantities in the Notice to Contractors are only for the purpose of comparing on a uniform basis the bids offered for the work under this contract, and he further agrees that he is satisfied with and will at no time dispute the said estimated quantities as a means of comparing the bids aforesaid; that he will make no claim for anticipated profits or for loss of profit because of a difference between the quantities of the various classes of work actually done or of the material actually furnished and the said estimated quantities; and he agrees that neither the parties of the first part, nor the Board, or any of them are held responsible if in the construction of the work any of the said estimated quantities should be found to be not even approximately correct.

This is much in line with the discussion in the previous chapter, but has a few points of difference sufficient to justify its use here. Another form introduces features not included in the previous chapter:

E. The City shall have the power to vary, extend, increase or diminish the quantity, to change the order or type of work, or dispense with a portion thereof at any time without impairing the contract, without changing the unit prices to be paid, without in any way impairing the bond or releasing the sureties thereof; and no payment of any kind will be made on account of work not done. In case of reduction of amount, due to change in plans, if the total sum paid to the Contractor for the whole work done on the given contract is as much as ninety per cent of the estimated sum which would have been paid if no change had been made, no allowance will be due except payment for actual amounts done; but if the total amount is less than ninety per cent, an allowance will be made, and will be paid by the City on account of administration and plant costs, such amount to be fixed by the City. In case of increase in amounts of work, payment for the whole quantities at the unit prices bid for the work of the classes so increased, shall be full and complete compensation for the work done, no matter how much increased. In case the change involves the execution of work of a class not herein provided for, the Contractor shall, on direction of the City, perform same as provided for in the following article under the clause "Unclassified Work."

Another form somewhat similar in purpose is this:

F. An increase or decrease in said amount of work to be done shall not constitute grounds for damage or anticipated profit claims, the Contractor being entitled only to compensation for the actual work done at the prices named.

A section is introduced in many Contract forms providing for liquidated damages. No clause of this sort is found in the Uniform Contract Form of the preceding chapter. A place usual for such a clause is closely following a statement that "time is of the essence of this Contract."

59. In case the work embraced in this contract shall not be completed by the time herein appointed, the Contractor shall pay to the Commonwealth as liquidated damages and in full compensation for such delay, the sum of twenty-five dollars ($25.) for each and every day beyond the time herein stipulated for the completion of the work, until said work shall be completed.

Other forms provide:

A. Which sum is agreed upon, not as a penalty, but as fixed and liquidated damages for each day of such delay, to be paid in full and subject to no deduction. If the payments due the Contractor are less than the amount of such liquidated damages, the Contractor and his surety shall pay the balance to said Commission.

B. It is therefore covenanted and agreed that in case the said Contractor shall fail or neglect to complete the work herein specified on or before the date hereinbefore fixed for completion, the said Contractor shall and will pay the said City the

sum of **Fifty Dollars** ($50.) for each and every day the Contractor shall be in default in the time of completion of this contract.

Said sum of **Fifty Dollars** ($50.) per day is hereby agreed upon, fixed and determined by the parties hereto as the liquidated damages which said City will suffer by reason of such defaults, and not by way of a penalty. In case the said Contractor does not complete the work covered by this contract on or before the time specified herein for the completion of the said work, the Engineer shall decide the number of days the said Contractor is in default, and the decision of said Engineer shall be final and binding upon both parties hereto. It is further agreed that if said Board shall accept any work or make any payments under this contract after any such default, such acceptance, payment or payments shall not in any respect constitute a waiver or modification of any of the provisions hereof, and particularly the provisions in regard to **Time and Liquidated Damages** for delays.

C. The date of completion will be fixed by the date upon which the Director of Public Service shall finally inspect and issue to the Contractor a statement of acceptance of the completed structure.

Another form reads:

D. Which sum of fifty dollars ($50.) per day, in view of the difficulty of perfectly estimating the damages due to delay, is hereby agreed upon as the liquidated damages that the Commission will suffer by reason of such delay, and not as a penalty.

A more concise reading in use is this:

E. The amount or amounts thus withheld shall not be considered a penalty, but shall be considered liquidated damages, which are fixed and agreed to hereby in advance by the contracting parties as the actual cost to the City of such delay.

It is doubtful whether this would be upheld if evidence should be offered to show that the sum stated was in fact unreasonable. The court might not refuse to admit such evidence even under this agreement.

It is well established as a matter of law that for a breach of Contract (and a failure to complete in time is such a breach) the remedy is the payment of the damages actually suffered. The courts seem to have found reason to resist the fixing of any other measure of damages, and they especially object to a penalty for non-performance. The use of the words "liquidated damages" does not remove the difficulty; if the court thinks that in fact the sum stated (or any provision named) is in effect a penalty, it will refuse to sustain it.

There are two cases where "liquidated damages" meet the approval of the courts. First: where the parties to a Contract have in advance computed, ascertained, and agreed upon a sum as "liquidated damages." Second: where the amount of damage cannot be definitely determined and a sum is fixed and stated as "liquidated damages." In this second case, however, the sum so fixed must appear to the court to be reasonable; other-

wise the court will regard it as a penalty. In construction Contracts, where blank forms are provided for a number of bidders, it can hardly be maintained that the parties have beforehand computed and ascertained the damage; it should, however, be true that the liquidated damages mentioned are reasonable in view of the losses from the delay. Any attempt to overdo the matter, or to put undue pressure on the Contractor in this clause is likely to result in the court's decision that a "penalty" is provided. The court will look beyond the words and determine the essential fact whether the provision does effect a penalty.

The following readings apparently attempt to cover the essential requirements:

F. It is understood and agreed that **Time** is of the essence of this contract, and that a failure on the part of said Contractor to complete the work herein specified in the time herein specified, will result in great loss and damage to said City, and that on account of the peculiar nature of such loss and damage it is difficult, if not impossible, to accurately ascertain and definitely determine the amount thereof.

Said sum of **Fifteen Dollars** ($15.00) per day for default in the time of complete delivery of all said metal work is hereby agreed upon, fixed and determined by the parties hereto as the liquidated damages which said City will suffer by reason of such default, and not by way of a penalty.

G. Time of completion is of the essence of this contract and should the Contractor fail to complete the work within the number of days specified in his proposal, he shall be liable to the City, for each additional working day until completion of the work, the amount named in the Instructions to Bidders as the daily cost of inspection and daily value of the use of the completed work, which said amount per day was considered in determining that the Contractor was the lowest and best bidder. Said amount per working day will be deducted from the moneys which may be due the Contractor from the City, not as a penalty, but estimated and hereby agreed as liquidated and fixed damages to the City from failure to complete the work at the time specified; time of completion of the contract being an essential element in the consideration. In case the Director of Public Service grants an extension of time to the Contractor, the said amount per working day will be computed from the date to which the time is extended, until the actual completion of the work.

It is further agreed that the permitting of the Contractor to complete the work or any part of it after the time fixed for its completion shall in no wise operate as a waiver on the part of the City of any of its rights under this contract.

Another form provides for:

H. Liquidated damages $25. per day and in addition thereto the cost of the time of supervision and inspection during the interval of time between the contemplated and actual date of completion of said work.

The objections are unusually well met in the following:

I. It is mutually understood and agreed by and between the parties hereto that considerable damage will be sustained by the City in case the Contractor does not

complete this contract within the time herein provided for completion, but that it will be difficult, if not quite impossible, for the City to establish either the full extent or the amount of said damage under the ordinary rules of evidence.

It is, therefore, understood and agreed by and between the parties hereto that the payment by the Contractor to the City of the sum of One Hundred Dollars ($100.) per day for every day the Contractor fails to substantially complete the work to be done under this contract, according to the terms hereof, will be a fair and reasonable compensation to the City for the damage sustained by it by reason of failure so to complete said contract; and that the payment of such sum by the Contractor will not, in any way, constitute the infliction upon him of a penalty by the City.

It is further understood and agreed by the parties hereto that the Contractor shall pay to the City, as liquidated damages and not as a penalty, etc.

It would be difficult to overcome this as a matter of law, unless the sum stated should seem to the court clearly unreasonable.

A reading which apparently will stand (in view of the discussion of Article 26) is as follows:

J. If the Contractor fails to complete the work in accordance with this Contract and Specifications at the time specified, he shall pay to the Company for each and every day thereafter including Sundays and holidays that the completion is delayed, such sum not exceeding ..... dollars ($. . .) per day as the Chief Engineer shall determine to be the reasonable damages suffered.

This provides for reasonable damages and provides a means for their determination which the courts consistently sustain as lawful.

The provision for liquidated damages is probably introduced oftentimes in Contracts as a spur to urge Contractors to finish on time. Even for this purpose, the amount stated should not be in excess of the reasonable damages.

The opinion has often been held by Engineers and others that if liquidated damages are specified for delay, a premium must also be specified for completion at a date earlier than provided in the Contract. Such opinion is not well founded. In some cases such a provision is reasonable and wise, in other cases not. The following form provides:

K. If the Contractor fails to fully and entirely complete and finish the work in conformity to the terms and provisions of these specifications, he shall pay to the City the sum of fifty dollars ($50.) for each and every day thereafter, including Sundays and Holidays that the finishing of the contract is delayed, which sum shall be construed as stipulated and liquidated damages and not as a penalty . . . and if the Contractor shall fully complete the same before the time specified, he shall receive an extra or additional payment of twenty-five dollars ($25.) etc.

In this connection many Contract forms provide for delays from various causes. The quotations below from various sources are self-explanatory:

60. Should the Contractor be obstructed or delayed in the commencement, prosecution or completion of the work hereunder by any necessary or unavoidable act or delay of the Board, or unavoidable acts or delays on the part of railroads in transporting material consigned to said Board, or by riot, insurrection, war, pestilence, acts of public authorities, fire, lightning, earthquake, cyclone, or through any default of other parties under contract with said Board, and if, in the opinion of the Engineer, the ultimate completion of the entire work under this contract is delayed thereby, then the time herein fixed for the completion of all work under this contract shall be extended for a period equivalent to the time said work as a whole is, in the opinion of the Engineer, thereby delayed.

A. If legal obstructions to the prosecution of the work arise, the delay shall operate to extend the time for the completion of the part or parts of the work obstructed, for the length of time the obstruction continues and no longer, but no damages shall be claimed or allowed the Contractor for any such delay.

B. But no injunction, strike or interference of public authority shall be ground for such extension except if and from the time when the Contractor shall give the Commission notice of the injunction or other cause of delay, with copies of the injunction or other orders and of the papers upon which the same shall have been granted. The Commission and the City or either shall be accorded the right to intervene or become a party to any suit or proceeding in which any such injunction shall be obtained, and to move to dissolve the same or otherwise, as the Commission or the City may deem proper. If necessary the Corporation Counsel or the Counsel to the Commission or both shall be authorized by the Contractor to appear, for that purpose, as counsel or attorneys for him.

C. Neither an extension of time, for any reason, beyond that fixed in the Bid for the completion of the work, nor the acceptance of any part of the work called for by this contract shall be deemed to be a waiver by the Commission of the right to abrogate this contract for abandonment or delay, in the manner provided for in Article L in this agreement.

D. Whenever, within the limits of the contract time as fixed in the Proposal or as amended by any modification of the contract, the temperature, between the hours of six (6) A.M., and six (6) P.M., as officially recorded by the Dayton office of the U. S. Weather Bureau, shall register thirty-two (32) degrees Fahrenheit or lower, the Contractor will be granted an extension of contract time of one day for each such day of cold weather.

Whenever, within the limits of the contract time, fixed as previously noted, floods in the local rivers, or other unforeseen acts of Providence, operate to delay the completion of the work, the Board may extend the time of this contract by such amount as may be certified in writing by the Chief Engineer to be just.

Rainy or stormy weather will not be regarded as proper grounds for the extension of contract time, except when excessive or prolonged.

Many classes of work need not be suspended on account of frost.

E. In the event that any material alterations or additions are made as herein specified, which, in the opinion of the Engineer will require additional time for the execution of all work under this contract, then, in that case, the time of completion

of the work shall be extended by such a period or periods of time as may be fixed by said Engineer, and his decision shall be final and binding upon both parties hereto, provided that in such case the Contractor, within four (4) days after being notified in writing of such alterations or additions, shall request in writing an extension of time, but no extensions of time shall be given for any minor alterations or additions, and the provisions of this paragraph shall not otherwise alter, change or invalidate the provisions of this contract, with reference to **Liquidated Damages**, and the said Contractor shall not be entitled to any damages or compensation from the said Board on account of such additional time required for the execution of the work.

F. The time stipulated within which to complete the Work is based upon the quantities of the various items entering into the work as stated in the form of proposal, which are given solely for the purpose of classifying bids. In case these quantities are exceeded or diminished then an extension or diminution of the term of this contract shall be made. It is, however, understood and agreed that in case an increase in any one item is balanced or offset by diminution of other items, no change in the term shall be made, and in any event the Engineer shall determine the amount of extension or diminution of time in respect of the relative increase or reduction in the quantities involved in the final completion.

In many Contracts provision is made for maintenance and repairs for a definite term following the ordinary completion of the work. Such a clause is much used in connection with street pavements. In other cases the Contract provides for repairs only for a time after completion.

The following refers to street work:

61. The Contractor hereby agrees to repair all defects in the roadway pavement or other work done under this contract and arising, in the opinion of the City, out of the use of defective material, settlement of foundation or improper workmanship in the construction thereof and which from such causes may become necessary during the guarantee period of either three (3) or five (5) years after the date of the approval by the Director of Public Service of the Engineer's final estimate, without expense to the party of the first part, and the Contractor agrees to make such repairs when and as directed by the party of the first part by written notice served upon him; and if after having received such notice, the Contractor fails to make such repairs within five (5) days from the receipt of such written notice, the party of the first part may thereupon cause satisfactory repairs to be made and charge the expense thereof to the Contractor.

The City will repair and maintain all openings made in the pavement subsequent to its acceptance by the City.

A similar clause deals with sewer work and is differently phrased:

A. The Contractor hereby agrees that all defects in the work done under this contract arising, in the opinion of the City, out of the use of defective materials or improper workmanship in the construction thereof, which may become apparent during the period of one (1) year after the date of the approval of the Engineer's final estimate by the Director of Public Service, shall be remedied by him to the satisfaction of and without expense to the City. The City shall notify the Con-

tractor in writing by stating the defects and repairs to be made, and the Contractor agrees to remedy such defects and to make such repairs when and as directed by the City, and to start the said work within five (5) days from the date of said notification, and upon his failure to start or do the said work, the City may, at the expiration of five (5) days, thereupon cause the said defects to be remedied and the repairs to be made and shall charge the cost and expense thereof to the Contractor or his surety.

Such work may also include the re-setting of any and all castings and the refilling and levelling off of sewer trenches in private property or rights-of-way.

The provision below refers to retaining moneys for guaranteed work:

B. The City will retain five (5) per cent of the entire cost of the work done by the Contractor for the entire period of three (3) years from the date of the Engineer's certificate of the final estimate. The Contractor may, at his option, furnish a surety bond for ten (10%) per cent of the amount of the work done by him, to be in force for the entire period of five (5) years, in lieu of the five (5) per cent cash retainer. This cash retainer or surety bond being to insure compliance with the terms of the guarantee. The Director of Public Service shall have the power to spend all or any part of such retainer to make such repairs at the expiration of the guarantee period as above specified.

Whatever remains to the credit of the Contractor, provided all repairs have been made satisfactory to said Director, shall be paid to the Contractor.

The following refer more specifically to repairs:

C. If, at any time before twelve months have elapsed from the date of the completion of the work contemplated in this contract and any amendment thereof or order for extra work as herein provided, any part shall, in the opinion of the Engineer, require repairing, the Engineer may notify the Contractor, in person or by mail, to make the required repairs. If the Contractor neglects to make such repairs promptly, to the satisfaction of the Engineer, then the Engineer may employ other persons to make the same and the expense thereof shall be paid by the Contractor. The Commission may cause the expenses of the repairs to be paid out of any money due the Contractor on account of this contract.

D. If any defects or omissions in said work are hidden or concealed, so that a reasonable careful inspection at the time of acceptance of said work would not have disclosed them, and such defects or omissions appear or are disclosed within three (3) years after the final acceptance of said work, then said Contractor agrees, on notice given him in writing by the Chief Engineer that such defects or omissions exist, to immediately correct and make good the same, and in the event that he fails, refuses or neglects so to do, then said Sanitary District may correct and make good the same and said Contractor hereby agrees to pay on demand the cost and expense of doing such work.

E. The Contractor agrees to make all the needed repairs on the said work during a period of one year after its final completion; and he agrees that the Board is authorized to retain out of the moneys payable to him under this agreement the sum of two per cent on the amount of the contract, and to expend the same, or as much thereof as may be required, in making the aforesaid repairs to the satisfac-

tion of the Engineer, if within ten days after the delivery or mailing of a notice in writing to the Contractor or his agents, they shall neglect to make the aforesaid needed repairs; provided, however, that in case of an emergency where in the opinion of the Engineer, delay would cause serious loss or damage, the Board may make repairs without previous notice and at the expense of the Contractor.

F. The Contractor shall repair and make good all defects or deficiencies in work or material appearing during a period of nine months following the completion of the work contemplated herein, and if he shall fail to do so within five days after written notice of necessary repairs has been mailed to him by the Engineer, said repairs may be made by the party of the first part and paid for out of the funds to be retained by it for the purpose.

G. It is further agreed that after the final completion of the work the party of the first part may retain out of the payment due the Contractor such sums of money not exceeding three (3) per cent of the total contract price as may in the judgment of the party of the first part be necessary to cover the cost of repairs as set forth above, and the sums thus retained shall be paid to the Contractor after the expiration of the nine months referred to in the above paragraph on Repairs, and when such repairs shall be well and satisfactorily made.

The following clauses might have been discussed in connection with Sections 9, 11, 28, 29, but they introduce some additional features.

62. The Contractor is to furnish, free of charge, all stakes and such temporary structures as may be necessary for marking and maintaining points and lines given by the Engineer for the building of the work, and is to give said Engineer such facilities and materials for giving said lines and points as he may require; and the Engineer's marks must be carefully preserved.

A. All necessary lines, levels and grades shall be given to the Contractor, who shall provide at his own expense such forms, materials and assistance as may be required by the Engineer. If the Contractor through wilfulness or carelessness removes or permits to be removed said reference marks before the prosecution of the work requires it they shall be replaced at his expense.

It has previously been stated that some Contractors object to furnishing stakes and forms at their own expense, and with good reason.

B. The plans are intended to give approximately the line, grade and shape of the structure, typical details, etc., but the exact determination of all these is to be made from time to time by the Engineer.

C. The work during its progress and on its completion must conform to the lines and levels given by the Engineer, and must be done in accordance with the plans and directions given by him from time to time, subject to such modifications or additions as shall be deemed necessary during the execution of the work; and in no case will any work in excess of the requirements of the plans be paid for unless ordered in writing by the Engineer or his agent specially authorized thereto in writing.

In a number of Contracts the Commissioners have thought it wise to specifically provide against any personal responsibility on their part, in some cases including employees also in this exemption.

63. The members of the Commission and their employees shall not be personally responsible for any liability arising under this contract.

A. In no event whatever shall the Contractor be entitled to any compensation from the commissioners, their servants or agents, on account of any acts or omissions under or growing out of this contract.

B. The Contractor, by accepting and signing this contract, hereby expressly releases and discharges the individual members of the Commission, and each of them, from any and all personal liability of every name and nature.

A provision somewhat similar in character specifies a release to the City upon the final payment:

64. The acceptance by the Contractor of the last payment aforesaid shall operate as and shall be a release to the Commonwealth, the Board, and every member and agent thereof, from all claim and liability to the Contractor for anything done or furnished for, or relating to, the work, or for any act or neglect or the Commonwealth or of any person relating to or affecting the work, except the claim against the Commonwealth for the remainder, if any there be, of the amounts kept or retained as provided in this contract.

A. The payment of the final amount due under this contract and the adjustment and payment of the bills rendered for work done in accordance with any alterations of the same shall release the City from any and all claims or liability on account of work performed under this contract or any alteration thereof.

Objection to this clause has been made from the Contractor's side. It does not seem unreasonable, however, that the Company or City should expect the final settlement to be a settlement in full. It might cover the objection in part if the clause should read:

B. Unless otherwise agreed by the parties, the acceptance, etc.

The following is also somewhat along the same line:

C. If the Contractor shall claim compensation for any damage sustained by reason of the acts of the Board, or its agents, he shall, within 5 days after the sustaining of such damage, make a written statement of the nature of the damage sustained, to the Engineer. On or before the fifteenth day of the month succeeding that in which any such damage shall have been sustained, the Contractor shall file with the Engineer an itemized statement of the details and amount of such damage, and unless such statement shall be made as thus required, his claim for compensation shall be forfeited and invalidated, and he shall not be entitled to payment on account of any such damage.

A clause like the following is found in some Contracts:

65. All materials furnished under this agreement, unless otherwise provided, shall be the best of their respective kinds.

The desirability of this clause may well be questioned, at least for general use. In many Contracts parts of the work do not require the highest grade of material. This is discussed further in the chapter on Specifications.

To avoid the possibility of ambiguity, the following clause may be found in many Contracts:

66. Wherever in the specifications or upon the drawings the words directed, required, permitted, ordered, designated, prescribed, or words of like import are used, it shall be understood that the direction, requirements, permission, order, designation, or prescription of the Engineer is intended, and similarly the words, approved, acceptable, satisfactory, or words of like import, shall mean approved by, or acceptable, or satisfactory to the Engineer, subject in each case to the final determination of the Board, unless otherwise expressly stated.

As to the necessity or advisability of such a clause, engineers or attorneys may readily differ.

A similar definition is sometimes made as to notice:

A. The word "notice" to mean a written notice.

To cover any possible question as to the Contract calling for a completed work, provisions of the following sort are sometimes introduced:

67. The Contractor shall be held responsible for any or all materials or work done to the full amount of all payments made thereon, and he will be required to make good at his own cost any injury or damage which said materials or work may sustain from any sources or causes whatever before the final acceptance thereof.

A. All work, of whatever kind, which, during its progress and before it is finally accepted, may become damaged from any cause, shall be removed and replaced by good and satisfactory work.

It is doubtful if such a clause is necessary, but the following clause covers a point about which there might readily be some uncertainty except for this provision:

B. The Contractor shall provide suitable and adequate storage room for materials during the progress of the work and be responsible for any loss or damage to materials furnished by the Town as well as those furnished by him.

The following explains itself:

68. The Contractor may be required to prosecute the work at night if, for any reason, the work is delayed and not progressing at a rate to enable it

to be completed at the time specified, or if an approaching flood of the Ohio river, or if an approaching cold wave makes such night work especially desirable, and if at any time the Engineer shall, in writing, direct the Contractor to prosecute the work at night, he agrees to promptly comply with said demand and provide suitable and sufficient lights therefor. No night work will be ordered or permitted within the property of the Cemetery Co.

For night work, if any be performed by written order of the Engineer, the Contractor may or may not receive extra payment, as in the judgment of the Engineer is right and proper under the circumstances, it being understood that the compensation for such work and all expenses incidental thereto is included in the prices stipulated for the various items of this contract.

There are many miscellaneous provisions, a few of which are noted below. Most of these are not in general use, but are suggestive and worthy of mention.

69. No extra or customary measurements of any kind, unless specially noted, will be allowed in measuring the work under these specifications; but the length, area, solid contents or number only shall be considered as the basis for payment as hereinafter specified.

Where the computation of areas or volumes by exact geometric methods is unduly laborious or refined, the planimeter will be held an instrument of precision, and will be used in the determination of quantities upon which payments are based.

The measurements of the City as to the amount of the work done shall be final and conclusive.

For certain lines of work the provision above may have considerable point.

70. Nothing in this contract shall be considered as vesting in the Contractor any right of property in materials used, after they shall have been attached or affixed to the work or the soil, nor in materials which have been estimated for partial payment, but all such materials shall, upon being so attached or affixed or estimated, become the property of the City.

71. All books and accounts kept by the Contractor in connection with this contract shall be open to the inspection of the Chief Engineer or his properly accredited representative.

The Contractor shall furnish the Engineer reasonable facilities for obtaining such information as he may desire respecting the progress and execution of the work and the character of the materials, including all information necessary to determine the cost of the work, such as the number of men employed, their pay, the time during which they have worked on the various classes of construction, the cost of repairs to machinery, and other information required by the Engineer. The Contractor shall, on request, furnish the Engineer with copies of expense bills for transportation charges on all machinery, material and supplies shipped to or from the work under this contract.

This requires a large amount of detail and if made use of, involves expense both to the City and to the Contractor. It appears not to be

largely included in Contracts. Where there is much extra work, it may be necessary.

72. Whenever the requirements of the drawings necessitate crossing over or under railroads with the structure, the Contractor shall notify such road or roads not less than one (1) week in advance of any operations at the crossings, and will also make such arrangements for the protection and maintenance of traffic and of structures as will satisfy the City and the division engineer or other proper officials of said railroad.

This provides for a special matter. Some might prefer to include it in the specifications rather than in the Contract.

73. Wherever it is required as a part of the contract to perform work within the limits of private property, or in rights-of-way, such work shall be done in conformity with all agreements between the City and such owners, and whether or not such a condition be part of the agreement, care shall be taken to avoid injury to the premises entered, which premises shall be left in a neat and orderly condition by the removal of rubbish and the grading of surplus materials and the restoration of said private property to the same general condition as at the time of entry for work to be performed under this contract.

74. Advertising bills or signs shall not be posted on any part of the work, except that the name of the Contractor may be displayed. The Contractor shall cause the notice "Post no bills" to be suitably displayed, and he shall enforce the requirement.

A section unusual in form is shown below. Many features are embodied in one place or another in the forms shown in the preceding chapter, but perhaps not all of them:

75. As the said payments become due the Commission shall certify the amount thereof to the Auditor of the Commonwealth for payment by the Treasurer.

Provided, however, and upon the express condition, that no money shall at any time be due or payable from the Commonwealth to the Contractor, and no order shall be due from the Commission:

(1) Unless all the work to the time in question has been done in the manner set forth in this contract, and to the satisfaction of the Engineer, and there has been no breach by the Contractor of any of the provisions of this contract.

(2) Unless the Engineer shall submit to the Commission his written certificate that all the work to the time in question has, in his opinion, been done in the manner provided in the contract, and to his satisfaction.

(3) Unless the Contractor shall furnish to the Commission, if requested, satisfactory evidence that any claim that may be made against the Commonwealth, or the Commission, or the Engineer, or any person or persons employed by them, or against the Contractor or any sub-contractor, based upon any of the claims mentioned in clauses (*a*), (*c*) and (*g*) of the "General Requirements," has been satisfied by the Contractor.

(4) If the Commonwealth or the Commission be restrained by legal process from making such payments.

And provided, further, that the Commonwealth or the Commission may retain any moneys which would otherwise be payable at any time hereunder and apply the same, or so much as may be necessary therefor, to the payment of any expense, losses or damages incurred by the Commonwealth or the Commission and determined as herein provided, and may retain, until all claims are settled, so much of such moneys as the Commission shall be of opinion will be required to settle all claims against the Commonwealth, the Commission, the Engineer and their officers and agents specified in clauses (*a*), (*c*) and (*g*) of the "General Requirements," and all claims which have been filed in the office of the Commission for labor on and for materials used in the work; or the Commission may make such settlements and apply thereto any moneys retained under this contract. If the moneys retained under this contract are insufficient to pay the sums found by the Commission to be due under the claims for labor and materials, the Commonwealth or the Commission may at its discretion pay the same, and the Contractor shall repay to the Commonwealth or the Commission all sums so paid out.

The following provision contains little that has not been shown previously, but the grouping is different, and it seems desirable to include it in this form:

76. The Contractor shall do all the work and furnish all the materials, tools and appliances, except as herein otherwise specified, necessary or proper for performing and completing the work required by this contract, in the manner and within the time hereinafter specified. He shall furnish, erect, maintain and remove the construction plant and such temporary works as may be required. If at any time before the commencement or during the progress of the work of any part of it, the Contractor's methods or appliances appear to the Director to be unsafe, inefficient or inadequate for securing the safety of the workmen, the quality of work or the progress required, he may order the Contractor to increase their safety and efficiency or to improve their character, and the Contractor shall comply with such orders; but the failure of the Director to make such demand shall not relieve the Contractor of his obligation to secure the safe conduct, the quality of work and the progress required by the contract, and the Contractor alone shall be responsible for the safety, efficiency and adequacy of his plant, appliances and methods. All the work, labor and materials to be done and furnished under this contract shall be done and furnished strictly pursuant to, and in conformity with the attached Specifications, and the lines and grades and other directions of the Director as given from time to time during the progress of the work under the terms of this contract, and also in accordance with the contract drawings, and with working drawings to be furnished from time to time. The Contractor shall complete the entire work to the satisfaction of the Director, and in accordance with the specifications and drawings herein mentioned, and at the prices herein agreed upon and fixed therefor. The date for said completion shall be on or before.....19.., the time expressly stated by the Contractor in his proposal or bid as the date upon which he agrees to complete the contract items herein bid upon.

Where an acknowledgment is taken of the signatures of the parties to the contract, the following forms are sometimes used, and are reasonable and proper forms:

77. State of.....
County of.....} ss.

On this.....day of.....19.., before me personally came.....
to me known and known to me to be the same person described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same for the purposes therein mentioned.

.....

.....Title.

A. State of.....
County of.....} ss.

On this.....day of.....19..,
before me personally came.....
to me personally known and known to me to be a member of the firm of.....
.....
and the person described in and who executed the foregoing instrument in behalf of said firm, and he acknowledged to me that he executed the same in behalf of, and as the act of said firm for the purposes therein mentioned.

.....

.....Title.

B. State of.....
County of.....} ss.

On this.....day of.....19.., before me personally came.....
to me personally known and known to me to be the.....
of the.....
the corporation described in and which executed the foregoing instrument and
.....
to me personally known and known to me to be the.....
of said corporation, who being by me severally duly sworn did say, each for himself, as follows:
The said.....
resides at.....
and is such.....
and the said.....
resides at.....
and is such.....
I know the corporate seal of said corporation; the seal affixed to the foregoing instrument is such corporate seal and it was so affixed by order of the Board of Directors of said corporation, and by the like order I signed thereto my name and official designation.

.....

.....Title.

The following is a fine example of a draft for a cost plus percentage scheme of work. Some of the provisions have special interest in connection with extra work, as well as with suspension or annulment.

78. CONTRACT FOR EMERGENCY WORK

CONSTRUCTION OF.....

CONTRACT made and concluded this ..... day of ..... 19.., by and between ..... a corporation organized under the laws of the State of ..... represented by ..... its President, party of the first part (hereinafter called Contractor) and the

UNITED STATES OF AMERICA

By Major W. A. Dempsey, Q. M. U. S. R. (hereinafter called Contracting Officer) acting by authority of the Secretary of War, party of the second part.

WHEREAS, the Congress having declared by Joint Resolution approved April 6, 1917, that war exists between the United States of America and Germany, a national emergency exists and the United States urgently requires the immediate performance of the work hereinafter described, and it is necessary that said work shall be completed within the shortest possible time; and

WHEREAS, it is advisable under the disturbed conditions which exist in the contracting industry throughout the country for the United States to depart from the usual procedure in the matter of letting contracts, and adopt means that will insure the most expeditious results; and

WHEREAS, the Contractor has had experience in the execution of similar work, has an organization suitable for the performance of such work, and is ready to undertake the same upon the terms and conditions herein provided;

NOW, THEREFORE, THIS CONTRACT WITNESSETH, That in consideration of the premises and of the payments to be made as hereinafter provided, the Contractor hereby covenants and agrees to and with the Contracting Officer as follows:

ARTICLE I

EXTENT OF THE WORK. The Contractor shall, in the shortest possible time, furnish the labor, material, tools, machinery, equipment, facilities, and supplies, and do all things necessary for the construction and completion of the following work:

(*Here follows a statement of the work to be performed.*)

in accordance with the drawings and specifications to be furnished by the Contracting Officer, and subject in every detail to his supervision, direction and instruction.

The Contracting Officer may, from time to time, by written instructions or drawings issued to the Contractor, make changes in said drawings and specifications, issue additional instructions, require additional work, or direct the omission of work previously ordered, and the provisions of this contract shall apply to all such changes, modifications and additions with the same effect as if they were embodied in the original drawings and specifications. The Contractor shall comply with all such written instructions or drawings.

The title to all work completed or in course of construction shall be in the United States; and upon delivery at the site of the work, and upon inspection and

acceptance in writing by the Contracting Officer, all machinery, equipment, hand tools, supplies, and materials, for which the Contractor shall be entitled to be reimbursed under paragraph (a) of Article II hereof, shall become the property of the United States. These provisions as to title shall not operate to relieve the Contractor from any duties imposed hereby or by the Contracting Officer.

ARTICLE II

COST OF THE WORK. The Contractor shall be reimbursed in the manner hereinafter described for such of its actual net expenditures in the performance of said work as may be approved or ratified by the Contracting Officer and as are included in the following items:

(a) All labor, material, machinery, hand tools not owned by the workmen, supplies and equipment, necessary for either temporary or permanent use for the benefit of said work; but this shall not be construed to cover machinery or equipment in section (c) of this Article. The Contractor shall make no departure from the standard rate of wages being paid in the locality where said work is being done, without the prior consent and approval of the Contracting Officer.

(b) All sub-contracts made in accordance with the provisions of this agreement.

(c) Rental actually paid by the Contractor, at rates not to exceed those mentioned in the schedule of rental rates hereto attached, for construction plant in sound and workable condition, such as pumps, derricks, concrete mixers, boilers, clam-shell or other buckets, electric motors, electric drills, electric hammers, electric hoists, steam shovels, locomotive cranes, power saws, engineers' levels and transits, and such other equipment as may be necessary for the proper and economical prosecution of the work.

Rental to the Contractor for such construction plant or parts thereof as it may own and furnish, at the rates mentioned in the schedule of rental rates hereto attached, except as hereinafter set forth. When such construction plant or any part thereof shall arrive at the site of the work, the Contractor shall file with the Contracting Officer a schedule setting forth the fair valuation at that time of each part of such construction plant. Such valuation shall be deemed final, unless the Contracting Officer shall, within five days after the machinery has been set up and is working, modify or change such valuation, in which event the valuation so made by the Contracting Officer shall be deemed final. When and if the total rental paid to the Contractor for any such part shall equal the valuation thereof, no further rental therefor shall be paid to the Contractor and title thereto shall vest in the United States. At the completion of the work, the Constructing Officer may at his option purchase for the United States any part of such construction plant then owned by the Contractor by paying to the Contractor the difference between the valuation of such part or parts and the total rentals theretofore paid therefor.

Rates of rental as substitutes for such scheduled rental rates may be agreed upon in writing between the Contractor and the Contracting Officer, such rates to be in conformity with rates of rental charged in the particular territory in which the work covered by this contract is to be performed. If the Contracting Officer shall furnish or supply any such equipment, the Contractor shall not be allowed any rental therefor and shall receive no fee for the use of such equipment.

(d) Loading and unloading such construction plant, the transportation thereof to and from the place or places where it is to be used in connection with said work

subject to the provisions hereinafter set forth, the installation and dismantling thereof, and ordinary repairs and replacements during its use in the said work.

(e) Transportation and expenses to and from the work of the necessary field forces for the economical and successful prosecution of the work, procuring labor and expediting the production and transportation of material and equipment.

(f) Salaries of resident engineers, superintendents, timekeepers, foremen, and other employees at the field offices of the Contractor in connection with said work. In case the full time of any field employee of the Contractor is not applied to said work but is divided between said work and other work, his salary shall be included in this item only in proportion to the actual time applied to this work.

(g) Buildings and equipment required for necessary field offices, commissary and hospital and the cost of maintaining and operating said offices, commissary and hospital, including such minor expenses as telegrams, telephone service, expressage, postage, etc.

(h) Such bonds, fire, liability and other insurance as the Contracting Officer may approve or require; and such losses and expenses, not compensated by insurance or otherwise, as are found and certified by the Contracting Officer to have been actually sustained (including settlements made with the written consent and approval of the Contracting Officer) by the Contractor in connection with said work, and to have clearly resulted from causes other than the fault or neglect of the Contractor. Such losses and expenses shall not be included in the cost of the work for the purpose of determining the Contractor's fee. The cost of reconstructing and replacing any of the work destroyed or damaged shall be included in the cost of the work for the purpose of reimbursement to the Contractor, but not for the purpose of determining the Contractor's fee, except as hereinafter provided.

(i) Permit fees, deposits, royalties, and other similar items of expense incidental to the execution of this contract, and necessarily incurred. Expenditures under this item must be approved in advance by the Contracting Officer.

(j) Such proportion of the transportation, traveling and hotel expenses of officers, engineers and other employees of the Contractor as is actually incurred in connection with this work.

(k) Such other items as should in the opinion of the Contracting Officer be included in the cost of the work. When such an item is allowed by the Contracting Officer, it shall be specifically certified as being allowed under this paragraph.

The United States reserves the right to pay directly to common carriers any or all freight charges on material of all kinds, and machinery, furnished under this contract, and certified by the Contracting Officer as being for installation or for consumption in the course of the work hereunder; the Contractor shall be reimbursed for such freight charges of this character as it shall pay and as shall be specifically certified by the Contracting Officer; but the Contractor shall have no fee based on such expenditures. Freight charges paid by the Contractor for transportation of construction equipment, construction plant, tools and supplies of every character, shall be treated as part of the cost of the work upon which the Contractor's fee shall be based; provided that charges for transportation of such construction equipment, construction plant and tools over distances in excess of five hundred miles shall require the special approval of the Contracting Officer.

No salaries of the Contractor's Executive Officers, no part of the expense incurred in conducting the Contractor's main office, or regularly established branch office, and no overhead expenses of any kind, except as specifically listed above,

shall be included in the cost of the work; nor shall any interest on capital employed or on borrowed money be included in the cost of the work.

The Contractor shall take advantage to the extent of its ability of all discounts available, and when unable to take such advantage shall promptly notify the Contracting Officer of its inability and its reasons therefor.

All revenue from the operations of the commissary, hospital or other facilities or from rebates, refunds, etc., shall be accounted for by the Contractor and applied in reduction of the cost of the work.

ARTICLE III

DETERMINATION OF FEE. As full compensation for the services of the Contractor, including profit and all general overhead expense, except as herein specifically provided, the Contracting Officer shall pay to the Contractor in the manner hereinafter prescribed a fee to be determined at the time of completion of the work from the following schedule, except as hereinafter otherwise provided:

If the cost of the work is under $100,000.00 a fee of ten per cent (10%) of such cost.

If the cost of the work is over $100,000.00 and under $125,000.00 a fee $10,000.00.

If the cost of the work is over $125,000.00 and under $250,000.00 a fee of eight per cent (8%) of such cost.

If the cost of the work is over $250,000.00 and under $266,666.67 a fee of $20,000.00.

If the cost of the work is over $266,666.67 and under $500,000.00 a fee of seven and one-half per cent (7½%) of such cost.

If the cost of the work is over $500,000.00 and under $535,714.29 a fee of $37,500.00.

If the cost of the work is over $535,714.29 and under $3,000,000.00 a fee of seven per cent (7%) of such cost.

If the cost of the work is over $3,000,000.00 and under $3,500,000.00 a fee of $210,000.00.

If the cost of the work is over $3,500,000.00 a fee of six per cent (6%) of such cost.

Provided, however, that the fee upon such part of the cost of the work as is represented by payments to sub-contractors, under subdivision (b) above, shall in each of the above contingencies be five per cent (5%) and no more of the amount of such part of the cost.

The cost of materials purchased or furnished by the Contracting Officer for said work, exclusive of all freight charges thereon, shall be included in the cost of the work for the purpose of reckoning such fee to the Contractor, but for no other purpose.

The fee for reconstructing and replacing any of the work destroyed or damaged shall be such percentage of the cost thereof — not exceeding seven per cent (7%) — as the Contracting Officer may determine.

The total fee to the Contractor hereunder shall in no event exceed the sum of $250,000.00, anything in this agreement to the contrary notwithstanding.

ARTICLE IV

PAYMENTS. On or about the seventh day of each month the Contracting Officer and the Contractor shall prepare a statement showing as completely as

possible: (1) the cost of the work up to and including the last day of the previous month, (2) the cost of the materials furnished by the Contracting Officer up to and including such last day, and (3) an amount equal to three and one-half per cent (3½%), except as herein otherwise provided, of the sum of (1) and (2) on account of the Contractor's fee; and the Contractor at such time shall deliver to the Contracting Officer original signed pay-rolls for labor, original invoices for materials purchased and all other original papers not theretofore delivered supporting expenditures claimed by the Contractor to be included in the cost of the work. If there be any item or items entering into such statement upon which the Contractor and the Contracting Officer cannot agree, the decision of the Contracting Officer as to such disputed item or items shall govern. The Contracting Officer shall then pay to the Contractor on or about the ninth day of each month the cost of the work mentioned in (1) and the fee mentioned in (3) of such statement, less all previous payments. When the statement above mentioned includes any work of reconstructing and replacing work destroyed or damaged, the payment on account of the fee in (3) for such reconstruction and replacement work shall be computed at such rate, not exceeding three and one-half per cent (3½%), as the Contracting Officer may determine. The statement so made and all payments made thereon shall be final and binding upon both parties hereto, except as provided in Article XIV hereof. The Contracting Officer may also make payments at more frequent intervals for the purpose of enabling the Contractor to take advantage of discounts at intervals between the dates above mentioned or for other lawful purposes. Upon final completion of said work the Contracting Officer shall pay to the Contractor the unpaid balance of the cost of the work and of the fee as determined under Articles II and III hereof.

ARTICLE V

INSPECTION AND AUDIT. The Contracting Officer shall at all times be afforded proper facilities for inspection of the work and shall at all times have access to the premises, to the work and material, and to all books, records, correspondence, instructions, plans, drawings, receipts, vouchers, and memoranda of every description of the Contractor pertaining to said work; and the Contractor shall preserve for a period of two years after its completion or cessation of work under this contract, all the books, records and other papers just mentioned. Any duly authorized representative of the Contractor shall be accorded the privilege of examining the books, records, and papers of the Contracting Officer relating to said work for the purpose of checking up and verifying the cost of said work. The system of accounting to be employed by the Contractor shall be such as is satisfactory to the Contracting Officer.

If at any time the Contracting Officer shall find that bills for labor, material, or other bills legitimately incurred by the Contractor hereunder, are not promptly paid by the Contractor, the Contracting Officer may, in his discretion, refuse to make further payments to the Contractor until all such obligations past due shall have been paid. Should the Contractor neglect or refuse to pay such bills within five days after notice from the Contracting Officer so to do, then the Contracting Officer shall have the right to pay such bills directly, in which event such direct payments shall not be included in the cost of the work.

ARTICLE VI

SPECIAL REQUIREMENTS. The Contractor hereby agrees that it will:

(a) Begin the work herein specified at the earliest time practicable, and diligently proceed so that such work may be completed at the earliest possible date.

(b) Promptly pay for all labor, material or other service rendered.

(c) Procure, and thereafter maintain such insurance, in such forms and in such amounts, and for such periods of time as the Contracting Officer may approve or require.

(d) Procure all necessary permits and licenses, and obey and abide by all laws, regulations, ordinances, and other rules applying to such work, of the United States of America, of the State or Territory wherein such work is done, of any subdivision thereof, or of any duly constituted public authority.

(e) Unless this provision is waived by the Contracting Officer, insert in every contract made by it for the furnishing to it of services, materials, supplies, machinery and equipment, or the use thereof, for the purposes of the work hereunder, a provision that such contract is assignable to the United States; will make all such contracts in its own name, and will not bind or purport to bind the United States or the Contracting Officer thereunder.

(f) In every sub-contract made in accordance with the provisions hereof, require the sub-contractor to agree to comply fully with all the undertakings and obligations of the Contractor herein, excepting such as do not apply to such sub-contractor's work.

(g) At all times keep at the site of the work a duly appointed representative who shall receive and execute on the part of the Contractor such notices, directions and instructions as the Contracting Officer may desire to give.

(h) At all times use its best efforts in all its acts hereunder to protect and subserve the interest of the Contracting Officer and the United States.

ARTICLE VII

RIGHT TO TERMINATE CONTRACT. Should the Contractor at any time refuse, neglect, or fail in any respect to prosecute the work with promptness and diligence or default in the performance of any of the agreements herein contained, the Contracting Officer may, at his option, after five days written notice to the Contractor, terminate this contract, and may enter upon the premises and take possession, for the purpose of completing said work, of all materials, tools, equipment, and appliances, and all options, privileges and rights, and may complete, or employ any other person or persons to complete said work. In case of such termination of the contract, the Contracting Officer shall pay to the Contractor such amounts of money on account of the unpaid balance of the cost of the work and of the fee as will result in fully reimbursing the Contractor for the cost of the work up to the time of such termination, plus a fee computed thereon at the rate or rates for monthly payments set forth in Article IV hereof; and the Contracting Officer shall also pay to the Contractor compensation, either by purchase or rental at the election of the Contracting Officer, for any equipment retained; such compensation, in the event of rental, to be in accordance with paragraph (c) of Article II, and in the event of purchase to be based upon the valuation determined by the Contracting Officer as of the time of his taking such possession. The Contractor hereby agrees

that such payments when made shall constitute full settlement of all claims of the Contractor against the Contracting Officer and the United States or either of them for money claimed to be due to the Contractor for any reason whatsoever. In case of such termination of the contract the Contracting Officer shall further assume and become liable for all such obligations, commitments, and unliquidated claims as the Contractor may have theretofore in good faith undertaken or incurred in connection with said work, and the Contractor shall, as a condition of receiving the payments mentioned in this Article, execute and deliver all such papers, and take all such steps as the Contracting Officer may require for the purpose of fully vesting in him the rights and benefits of the Contractor under such obligations or commitments. When the Contracting Officer shall have performed the duties incumbent upon him under the provisions of this Article, the Contracting Officer shall thereafter be entirely released and discharged of and from any and all demands, actions, or claims of any kind, on the part of the Contractor hereunder or on account hereof.

ARTICLE VIII

ABANDONMENT OF WORK BY CONTRACTING OFFICER. If conditions should arise which in the opinion of the Contracting Officer make it advisable or necessary to cease work under this contract, the Contracting Officer may abandon the work and terminate this contract. In such case the Contracting Officer shall assume and become liable for all such obligations, commitments and unliquidated claims as the Contractor may have theretofore, in good faith, undertaken or incurred in connection with said work; and the Contractor shall, as a condition of receiving the payments mentioned in this Article, execute and deliver all such papers, and take all such steps as the Contracting Officer may require for the purpose of fully vesting in him the rights and benefits of the Contractor under such obligations or commitments. The Contracting Officer shall pay to the Contractor such an amount of money on account of the unpaid balance of the cost of the work and of the fee, as will result in the Contractor receiving full reimbursement for the cost of the work up to the time of such abandonment, plus a fee to be computed in the following manner: To the cost of the work up to the time of such abandonment shall be added the amount of the contractual obligations or commitments assumed by the Contracting Officer, and such total shall be treated as the cost of the work, upon which the fee shall be computed in accordance with the provisions of Article III hereof. When the Contracting Officer shall have performed the duties incumbent upon him under the provisions of this Article, the Contracting Officer and the United States shall thereafter be entirely released and discharged of and from any and all demands, actions or claims of any kind on the part of the Contractor hereunder or on account hereof.

ARTICLE IX

BOND. The Contractor shall, prior to commencing the said work, furnish a bond, with sureties satisfactory to the Contracting Officer, in the sum of Two Hundred Fifty Thousand ($250,000.00) Dollars, conditioned upon its full and faithful performance of all the terms, conditions and provisions of this contract and upon its prompt payment of all bills for labor, material, or other service furnished to the Contractor.

ARTICLE X

CONVICT LABOR. No person or persons shall be employed in the performance of this contract who are undergoing sentence of imprisonment at hard labor imposed by the courts of any of the several states, territories, or municipalities having criminal jurisdiction.

ARTICLE XI

HOURS AND CONDITIONS OF LABOR. No laborer or mechanic doing any part of the work contemplated by this contract, in the employ of the Contractor, of any sub-contractor contracting for any part of said work contemplated, shall be required or permitted to work more than eight (8) hours in any one calendar day upon such work, such prohibition being in accordance with the Act approved June 19,1912, limiting the hours of daily service of mechanics and laborers on work under contracts to which the United States is a party. For each violation of the requirements of this Article a penalty of Five Dollars ($5.00) shall be imposed upon the Contractor for each laborer or mechanic for every calendar day in which said employee is required or permitted to labor more than eight (8) hours upon said work, and all penalties thus imposed shall be withheld for the use and benefit of the United States; Provided, that this paragraph shall not be enforced nor shall any penalty be exacted in case such violation shall occur while there is in effect any valid Executive order suspending the provisions of said Act approved June 19, 1912, or waiving the provisions and stipulations thereof with respect to either this contract or any class of contracts in which this contract shall be included, or when the violation shall be due to any extraordinary events or conditions of manufacture, or to any emergency caused by fire, famine, or flood, by danger to life or property, or by other extraordinary events or conditions on account of which, by subsequent Executive order, such past violation shall have been excused.

In the event of any dispute with reference to wages, hours, or other conditions appertaining to said work, between the Contractor or any sub-contractor and labor employed by him on said work, the Contractor or subcontractor shall immediately notify the Contracting Officer of the existence of such dispute and the reasons therefor. The Contracting Officer may, at his option, instruct the Contractor or sub-contractor involved in such dispute as to the method or steps which the Contractor or sub-contractor should follow with reference thereto, and the Contractor or sub-contractor shall thereupon comply with such instructions.

ARTICLE XII

RIGHT TO TRANSFER OR SUBLET. Neither this contract, nor any interest therein, shall be assigned or transferred. The Contractor shall not enter into any sub-contract for any part of the work herein specified without the consent and approval in writing of the Contracting Officer. In case of such assignment, transfer, or sub-letting without the consent and approval, in writing, of the Contracting Officer, the Contracting Officer may refuse to carry out this contract either with the transferror or transferee, but all rights of action for any breach of this contract by the Contractor are reserved to the United States.

ARTICLE XIII

NO PARTICIPATION IN PROFITS BY GOVERNMENT OFFICIALS. No member of, or delegate to, Congress, or Resident Commissioners, nor any other person belonging to or employed in the military service of the United States, is or shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom, but this Article shall not apply to this contract so far as it may be within the operation or exception of Section 116 of the Act of Congress approved March 4, 1909 (35 Stats., 1109).

ARTICLE XIV

SETTLEMENT OF DISPUTES. This contract shall be interpreted as a whole and the intent of the whole instrument, rather than the interpretation of any special clause, shall govern. If any doubts or disputes shall arise as to the meaning or interpretation of anything in this contract, or if the Contractor shall consider himself prejudiced by any decision of the Contracting Officer made under the provisions of Article IV hereof, the matter shall be referred to the Officer in charge of Cantonment Construction for determination. If, however, the Contractor shall feel aggrieved by the decision of the Officer in charge of Cantonment Construction, he shall have the right to submit the same to the Secretary of War, whose decision shall be final and binding upon both parties hereto.

ARTICLE XV

This contract shall bind and inure to the Contractor and its successors.

It is understood and agreed that wherever the words "Contracting Officer" are used herein, the same shall be construed to include his successor in office, any other person to whom the duties of the Contracting Officer may be assigned by the Secretary of War and any duly appointed representative of the Contracting Officer.

WITNESS the hands of the parties hereto the day and year first above written, all in triplicate.

By ..... *President.*

UNITED STATES OF AMERICA.

By .....
Contracting Officer.

SCHEDULE OF RENTAL RATES

(The rates mentioned are per day.)

Automobiles	$5.00	Buckets, Orangepeel, 1 yard	3.50
Adding and Listing Machines	.20	Orangepeel, less than 1 yard	2.00
Buckets,		Clamshell	2.00
Tipple and Bottom Dump	.25	Boiler, and 3 drum engine	3.50
Boring Machine, Pneumatic	.50	and 2 drum engine	3.00
Electric	.50	and 1 drum engine	2.50

SCHEDULE OF RENTAL RATES (Continued)

Boiler only, 30 h.p. and smaller	1.50
only, larger than 30 h.p.	2.00
Block Machine, Concrete	1.50
Cars, Skip, 1½ yards	.25
Skip, 3 yards	.50
Steel, 1 yd. and smaller	.15
4 yd. wooden	.25
6 yd. wooden	.25
12 yd. wooden	2.00
1 Hopper, Radial Gate	.25
Crushers only	2.00
with elevator and screen	3.00
Conveyor, gravity, per 100 feet	1.00
Compressor,	
10 × 10 with Steam Engine	2.50
8 × 8 Belt Driven	1.00
with Gasoline Engine on Wheels	5.00
Westinghouse, 9½ inch	1.00
Cableways, without Engine	4.00
Drill, Auto Traction	5.00
Dump Wagons	.25
Diving Outfit with Pumps	10.00
Derricks, 60 feet to 85 feet	2.00
30 feet to 59 feet	1.50
less than 30 feet	1.00
Breast	.25
Circle Swing	.25
Elevators, Platform or Bucket	.25
with Bins for Concrete	.50
Engines, Skeleton, 3 drum	2.00
Skeleton, 2 drum	1.50
Skeleton, 1 drum	1.00
Steam, Horizontal, 11 to 40 h.p.	1.50
Steam, Upright, to 10 h.p.	.50
Gasoline to 8 h.p.	.50
2 Drum, with Electric Motor	4.00
Gasoline, 10 h.p.	1.00
Derrick, Swinging	.50
Hammers, Riveting	.25
Hod Elevating Machine	1.00
Leveling Instruments, Engineers'.	.25
Locomotive, 36 inch Gauge	5.00
Standard Gauge	10.00
Mixers, with Boiler Sideloader	4.00
with Electric Motors, 1 yard	4.00
without Boiler, less than 1 yd.	2.00
Mixers,	
without Boiler, 1 yd. and larger	3.50
with Gasoline Engine	3.00
Motorcycles	1.00
Motors, 2 h.p.	.15
5 h.p.	.25
10 h.p.	.50
25 h.p.	1.00
50 h.p.	2.00
Pumps, Centrifugal, 10 inch, Belt Driven	3.00
Centrifugal, 10 inch with Motor Attached	4.00
Centrifugal, 8 inch Steam Connected	2.00
Centrifugal, 6 inch, Steam Connected	1.50
Centrifugal, 4 inch, Steam Connected	1.00
Duplex and Triplex to 3 inch.	.50
Pulsometer to 4 inch	1.55
Diaphragm	.20
Diaphragm, with Gas Engine	1.05
Triplex, with Belt Drive.	.20
Pile Drivers, Drop	1.50
Drop, with Single Drum Engine and Boiler	3.50
Pile Hammers,	
Steam, up to 2500 lbs.	3.00
Steam, larger than 2500 lbs.	5.00
Rail, per ton	.06
Roller, Horse	1.00
Steam Drills	1.00
Small Air Drills	.50
Steam Roller	8.00
Steam Shovel	30.00
Sprinkling Cart	1.00
Saw Benches	.25
with Motor or Gasoline Engine	.50
Scale Boxes	.25
Scraper, Wheel	.50
Transits	.50
Typewriter	.10

Fuel and Lubricants not included in these prices.

79. The Form of Agreement and the General Conditions of the Standard Contract Form of the American Institute of Architects are shown below by permission, and are presented without analytical comment. They are exceptionally well prepared and valuable documents.

NOTE. — This Form of Agreement is approved by the American Institute of Architects when used with the General Conditions of the Contract issued by the Institute.

THE STANDARD FORM OF AGREEMENT BETWEEN CONTRACTOR AND OWNER

ISSUED BY THE AMERICAN INSTITUTE OF ARCHITECTS

This form has been approved by the National Association of Builders' Exchanges, the National Association of Master Plumbers, the National Association of Master Steam and Hot Water Fitters, the National Association of Sheet Metal Contractors of the United States, the National Electrical Contractors' Association of the United States, and the National Association of Marble Dealers.

SECOND EDITION, COPYRIGHT 1915 BY THE AMERICAN INSTITUTE OF ARCHITECTS, THE OCTAGON, WASHINGTON, D.C. THIS FORM IS TO BE USED ONLY WITH THE STANDARD GENERAL CONDITIONS OF THE CONTRACT.

THIS AGREEMENT made the.....
day of.....in the year Nineteen Hundred and.....
by and between.....
hereinafter called the Contractor, and.....
.....hereinafter called the Owner,
WITNESSETH, that the Contractor and the Owner for the considerations hereinafter named agree as follows:

Article 1. The Contractor agrees to provide all the materials and to perform all the work shown on the Drawings and described in the Specifications entitled

(Here insert the caption descriptive of the work as used in the Proposal, General Conditions, Specifications, and upon the Drawings.)

prepared by.....
acting as, and in these Contract Documents entitled the Architect, and to do everything required by the General Conditions of the Contract, the Specifications and the Drawings.

Article 2. The Contractor agrees that the work under this Contract shall be substantially completed.....

(Here insert the date or dates of completion, and stipulations as to liquidated damages, if any.)

Article 3. The Owner agrees to pay the Contractor in current funds for the performance of the Contract.....($.....) subject to additions and deductions as provided in the General Conditions of the Contract and to make payments on account thereof as provided therein, as follows:

(Here insert provisions as to the method and times of payments.)

Article 4. The Contractor and the Owner agree that the General Conditions of the Contract, the Specifications and the Drawings, together with this Agreement, form the Contract, and that they are as fully a part of the Contract as if hereto

attached or herein repeated; and that the following is an exact enumeration of the Specifications and Drawings :

The Contractor and the Owner for themselves, their successors, executors, administrators and assigns, hereby agree to the full performance of the covenants herein contained.

IN WITNESS WHEREOF they have hereunto set their hands and seals, the day and year first above written.

In Presence of

..... } as to .....(SEAL)
..... }

..... } as to .....(SEAL)
..... }

THE GENERAL CONDITIONS OF THE CONTRACT

STANDARD FORM OF THE AMERICAN INSTITUTE OF ARCHITECTS

This form has been approved by the National Association of Builders' Exchanges, the National Association of Master Plumbers, the National Association of Master Steam and Hot Water Fitters, the National Association of Sheet Metal Contractors of the United States, the National Electrical Contractors' Association of the United States, and the National Association of Marble Dealers.

SECOND EDITION, COPYRIGHT 1915, BY THE AMERICAN INSTITUTE OF ARCHITECTS, THE OCTAGON, WASHINGTON, D. C.

Index to the Articles of the General Conditions

1. Definitions.
2. Documents.
3. Details and Instructions.
4. Copies Furnished.
5. Shop Drawings.
6. Drawings on the Work.
7. Ownership of Drawings.
8. Samples.
9. The Architect's Status.
10. The Architect's Decisions.
11. Foreman, Supervision.
12. Materials, Labor, Appliances.
13. Inspection of Work.
14. Correction before Final Payment.
15. Deductions for Uncorrected Work.
16. Correction after Final Payment.
17. Protection of Work and Property.
18. Emergencies.
19. Damage to Persons.
20. Liability Insurance.
21. Fire Insurance.
22. Guaranty Bonds.
23. Cash Allowances.
24. Changes in the Work.
25. Claims for Extras.
26. Applications for Payments.
27. Certificates and Payments.
28. Payments Withheld.
29. Liens.
30. Permits and Regulations.
31. Royalties and Patents.
32. Use of Premises.
33. Cleaning up.
34. Cutting, Patching and Digging.
35. Delays.
36. Owner's Right to Do Work.
37. Owner's Right to Terminate Contract.
38. Contractor's Right to Stop Work or Terminate Contract.
39. Damages.
40. Mutual Responsibility of Contractors.
41. Separate Contracts.
42. Assignment.
43. Subcontracts.
44. Relations of Contractor and Subcontractor.
45. Arbitration.

Article 1. Principles and Definitions. —

(a) The Contract Documents consist of the Agreement, the General Conditions of the Contract, the Drawings and Specifications. These form the Contract.

(b) The Owner, the Contractor and the Architect are those named as such in the Agreement. They are treated throughout the Contract Documents as if each were of the singular number and masculine gender.

(c) The Contractor shall, as in Article 43, be responsible to the Owner for the acts and omissions of his subcontractors and of all persons directly or indirectly employed by him or them in connection with the work.

(d) The term Subcontractor includes only those having a direct contract with the Contractor and it includes one who furnishes material even though he does no work.

(e) The term " person " or " anyone " as employed herein shall be taken to include a firm or corporation.

(f) Written notice shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or mailed to the last business address known to him who gives the notice.

(g) The term " work " of the Contractor or Subcontractor includes labor or materials or both.

(h) When the words " approved," " satisfactory," " equal to," " proper," " as directed," etc., are used, approval, etc., by the Architect is understood.

(j) All time limits stated in the Contract Documents are of the essence of the contract.

(k) The law of the place of building shall govern the construction of this contract.

Art. 2. Execution, Correlation and Intent of Documents. — The Contract Documents shall be signed in duplicate by the Owner and Contractor. In case of failure to sign the General Conditions, Drawings or Specifications the Architect shall identify them. Even though the signatures of the Owner and the Contractor may have been attested by witnesses they may be proved by any competent evidence.

The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intention of the documents is to include all labor and materials reasonably necessary for the proper execution of the work. It is not intended, however, that materials or work not covered by or properly inferable from any heading, branch, class or trade of the Specifications shall be supplied unless distinctly so noted on the drawings. Materials or work described in words which so applied have a well-known technical or trade meaning shall be held to refer to such recognized standards.

Art. 3. Detail Drawings and Instructions. — The Architect shall furnish, with reasonable promptness, additional instructions, by means of drawings or otherwise, necessary for the proper execution of the work. All such drawings and instructions shall be consistent with the Contract Documents, true developments thereof, and reasonably inferable therefrom. The work shall be executed in conformity therewith and the Contractor shall do no work without proper drawings and instructions.

The Contractor and the Architect, if either so requests, shall jointly prepare a schedule, subject to change from time to time in accordance with the progress of the work, fixing the latest dates at which the various detail drawings will be required, and the Architect shall furnish them in accordance with that schedule. Under like conditions, a schedule shall be prepared, fixing dates for the submission of shop drawings, for the beginning of manufacture and installation of materials and for the completion of the various parts of the work.

Art. 4. Copies Furnished. — Unless otherwise provided in the Contract Documents the Architect will furnish to the Contractor, free of charge, all copies of drawings and specifications reasonably necessary for the execution of the work.

Art. 5. Shop Drawings. — The Contractor shall submit two copies of all shop or setting drawings and schedules required for the work of the various trades and the Architect shall pass upon them with reasonable promptness. The Contractor shall make any corrections required by the Architect, file with him two corrected copies and furnish such copies as may be needed. The Architect's approval of such drawings or schedules shall not relieve the Contractor from responsibility for deviations from drawings or specifications, unless he has in writing called the Architect's attention to such deviations at the time of submission, nor shall it relieve him from responsibility for errors of any sort in shop drawings or schedules.

Art. 6. Drawings and Specifications on the Work. — The Contractor shall keep one copy of all drawings and specifications on the work, in good order, available to the Architect and to his representatives.

Art. 7. Ownership of Drawings and Models. — All drawings, specifications and copies thereof furnished by the Architect are his property. They are not to be used on other work and, with the exception of the signed contract set, are to be returned to him on request, at the completion of the work. All models are the property of the Owner.

Art. 8. Samples. — The Contractor shall furnish for approval all samples as directed. The work shall be in strict accordance with approved samples.

Art. 9. The Architect's Status. — The Architect shall have general supervision and direction of the work. He is not the agent of the Owner, except as provided in the Contract Documents and when in special instances he is authorized by the Owner to act, and in such instances he shall, upon request, show the Contractor written authority. He has authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract.

In case of the termination of the employment of the Architect, the Owner shall appoint a capable and reputable Architect, whose status under the contract shall be that of the former Architect.

Art. 10. The Architect's Decisions. — The Architect shall, within a reasonable time, make decisions on all claims of the Owner or Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the Contract Documents.

Except as may be otherwise expressly provided in or appended to these General Conditions or as particularly set forth in the specifications, all the Architect's decisions are subject to arbitration.

Art. 11. Foreman, Supervision. — The Contractor shall keep on the work a competent general foreman and any necessary assistants, all satisfactory to the Architect. The general foreman shall not be changed except with the consent of the Architect. The foreman shall represent the Contractor in his absence and all directions given to him shall be as binding as if given to the Contractor. On written request such directions shall be confirmed in writing to the Contractor.

The Contractor shall give efficient supervision to the work, using his best skill and attention. He shall carefully study and compare all drawings, specifications and other instructions and shall at once report to the Architect any error, inconsistency or omission which he may discover.

Art. 12. Materials, Labor, Appliances. — Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light and power necessary for the execution of the work.

Unless otherwise specified, all materials shall be new and both workmanship

and materials shall be of good quality. The contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

Art. 13. Inspection of Work. — The Owner, the Architect and their representatives shall at all times have access to the work wherever it is in preparation or progress and the Contractor shall provide proper facilities for such access and for inspection.

If the specifications, the Architect's instructions, laws, ordinances or any public authority require any work to be specially tested or approved, the Contractor shall give the Architect timely notice of its readiness for inspection and the Architect shall promptly inspect it. If any such work should be covered up without approval or consent, it must, if required by the Architect, be uncovered for examination at the Contractor's expense.

Re-examination of questioned work may be ordered by the Architect and, if found not in accordance with the Contract, all expense of re-examination and replacement shall be borne by the Contractor, otherwise it shall be allowed as extra work.

Art. 14. Correction of Work before Final Payment. — The Contractor shall promptly remove from the premises all materials, whether worked or unworked, and take down and remove all portions of the work condemned by the Architect as failing to conform to the Contract; and the Contractor shall promptly replace and re-execute his own work in accordance with the Contract and without expense to the Owner and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

If the Contractor does not remove such condemned work and materials within a reasonable time, fixed by written notice, the Owner may remove them and may store the material at the expense of the Contractor. If the Contractor does not pay the expense of such removal within five days thereafter, the Owner may, upon ten days' written notice, sell such materials at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs and expenses that should have been borne by the Contractor.

Art. 15. Deductions for Uncorrected Work. — If the Architect deems it inexpedient to correct work injured or not done in accordance with the Contract, the difference in value together with a fair allowance for damage shall be deducted, if acceptable to the Owner.

Art. 16. Correction of Work After Final Payment. — Neither the final certificate nor payment nor any provision in the Contract Documents shall relieve the Contractor of responsibility for negligence or faulty materials or workmanship within the extent and period provided by law, and upon written notice he shall remedy any defects due thereto and pay for any damage to other work resulting therefrom. All questions arising under this Article shall be decided under Articles 10 and 45.

Art. 17. Protection of Work and Property. — The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect the Owner's and adjacent property from injury arising in connection with this Contract. He shall make good any such damage or injury, except such as may be directly due to errors in the contract documents.

Art. 18. Emergencies. — In an emergency affecting the safety of life or of the structure or of adjoining property, not considered by the Contractor as within the

provisions of Article 17, then the Contractor, without special instruction or authorization from the Architect or Owner, is hereby permitted to act, at his discretion, to prevent such threatened loss or injury, and he shall so act, without appeal, if so instructed or authorized. Any compensation claimed to be due to him therefor shall be determined under Articles 10 and 45 regardless of the limitations in Article 25 and in the second paragraph of Article 24.

Art. 19. Damage to Persons. — In addition to the liability imposed by law upon the Contractor on account of bodily injury or death suffered through the Contractor's negligence, which liability is not impaired or otherwise affected hereby, the Contractor hereby assumes, in cases not embraced within such legal liability, the obligation to save the owner harmless and indemnify him from every expense, liability or payment (voluntary payments excepted), by reason of any injury to any person or persons, including death, suffered through any act or omission of the Contractor or any Subcontractor, or anyone directly or indirectly employed by either of them, in the prosecution of any work included in this Contract.

Art. 20. Liability Insurance. — The Contractor shall maintain such insurance as will protect him from claims under workmen's compensation acts and from any other claims for damages for personal injury, including death, which may arise from operations under this Contract. Certificates of such insurance shall be filed with the Owner, if he so require, and shall be subject to his approval for adequacy of protection. The Owner shall be responsible for his own contingent liability.

Art. 21. Fire Insurance. — The Owner shall effect and maintain fire insurance upon the entire structure on which the work of this Contract is to be done and upon all materials, tools and appliances in or adjacent thereto and intended for use thereon, to at least eighty per cent of the insurable value thereof. The loss, if any, is to be made adjustable with and payable to the Owner as Trustee for whom it may concern.

All policies shall be open to inspection by the Contractor. If the Owner fails to show them on request or if he fails to effect or maintain insurance as above, the Contractor may insure his own interest and charge the cost thereof to the Owner. If the Contractor is damaged by failure of the Owner to maintain such insurance, he may recover under Art. 39.

If required in writing by any party in interest, the Owner as Trustee shall, upon the occurrence of loss, give bond for the proper performance of his duties. He shall deposit any money received from insurance in an account separate from all his other funds and he shall distribute it in accordance with such agreement as the parties in interest may reach, or under an award of arbitrators appointed, one by the Owner, another by joint action of the other parties in interest, all other procedure being in accordance with Art. 45. If after loss no special agreement is made, replacement of injured work shall be ordered under Art. 24.

The Trustee shall have power to adjust and settle any loss with the insurers unless one of the contractors interested shall object in writing within three working days of the occurrence of loss and thereupon arbitrators shall be chosen as above. The Trustee shall in that case make settlement with the insurers in accordance with the directions of such arbitrators, who shall also, if distribution by arbitration is required, direct such distribution.

Art. 22. Guaranty Bonds. — The Owner shall have the right to require the Contractor to give bond covering the faithful performance of the Contract and the payment of all obligations arising thereunder, in such form as the Owner may prescribe and with such sureties as he may approve. If such bond is required by

instructions given previous to the receipt of bids, the premium shall be paid by the Contractor; if subsequent thereto, it shall be paid by the Owner.

Art. 23. Cash Allowances. — The Contractor shall include in the contract price all allowances named in the Contract Documents and shall cause the work so covered to be done by such contractors and for such sums as the Architect may direct, the contract sum being adjusted in conformity therewith. The Contractor, in making up his bid, shall add such sums for expenses and profit on account of cash allowances as he deems proper and no demand for expenses or profit other than those included in the contract sum shall be allowed. The Contractor shall not be required to employ for any such work a Subcontractor against whom he has a reasonable objection.

Art. 24. Changes in the Work. — The Owner, without invalidating the Contract, may make changes by altering, adding to or deducting from the work, the contract sum being adjusted accordingly. All such work shall be executed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.

Except as provided in Articles 9 and 18, no change shall be made unless in pursuance of a written order from the Owner signed or countersigned by the Architect and no claim for an addition to the contract sum shall be valid unless so ordered.

The value of any such change shall be determined in one or more of the following ways:

(a) By Estimate and Acceptance in a lump sum.
(b) By Unit Prices named in the contract or subsequently agreed upon.
(c) By Cost and Percentage or by Cost and a fixed fee.
(d) If none of the above methods is agreed upon, the Contractor, provided he receive an order in writing signed by the Owner and countersigned by the Architect, shall proceed with the work, no appeal to arbitration being allowed from such order to proceed.

In cases (c) and (d), the Contractor shall keep and present in such form as the Architect may direct, a correct account of the net cost of labor and materials, together with vouchers. In any case, the Architect shall certify to the amount, including a reasonable profit, due to the Contractor. Pending final determination of value, payments on account of changes shall be made on the Architect's certificate.

Art. 25. Claims for Extras. — If the Contractor claims that any instructions, by drawings or otherwise, involve extra cost under this Contract, he shall give the Architect written notice thereof before proceeding to execute the work and, in any event, within two weeks of receiving such instructions, and the procedure shall then be as provided in the last paragraph of Art. 24. No such claim shall be valid unless so made.

Art. 26. Applications for Payments. — The Contractor shall submit to the Architect an application for each payment and, if required, receipts or other vouchers from subcontractors showing his payments to them for materials and labor as required by Article 44.

If payments are made on valuation of work done, such application shall be submitted at least ten days before each payment falls due. If required, the Contractor shall before the first application submit to the Architect a schedule of values of the various parts of the work, aggregating the total sum of the Contract, divided so as to facilitate payments to subcontractors in accordance with Article 44 (e) made out in such form as the Architect may direct and, if required, supported by evidence as to

its correctness. This schedule, when approved by the Architect, shall be used as a basis for certificates of payment, unless it be found to be in error. In applying for payments, the Contractor shall submit a statement based upon this schedule and, if required, itemized in such form as the Architect may direct, showing his right to the payment claimed.

Art. 27. Certificates and Payments. — If the Contractor has made application as above, the Architect shall, not later than the date when each payment falls due, issue to the Contractor a certificate for such amount as he decides to be properly due.

No certificate issued nor payment made to the Contractor, nor partial or entire use or occupancy of the work by the Owner shall be an acceptance of any work or materials not in accordance with this Contract. The making and acceptance of the final payment shall constitute a waiver of all claims by the Owner, otherwise than under Articles 16 and 29 of these conditions or under requirement of the specifications, and all of claims by the Contractor, except those previously made and still unsettled.

Should the Owner fail to pay the sum named in any certificate of the Architect or in any award by arbitration, upon demand when due, the Contractor shall receive, in addition to the sum named in the certificate, interest thereon at the legal rate in force at the place of building.

Art. 28. Payments Withheld. — The Architect may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate for payment to protect the Owner from loss on account of:

(a) Defective work not remedied.
(b) Claims filed or reasonable evidence indicating probable filing of claims.
(c) Failure of the Contractor to make payments properly to subcontractors or for material or labor.
(d) A reasonable doubt that the Contract can be completed for the balance then unpaid.

When all the above grounds are removed certificates shall at once be issued for amounts withheld because of them.

Art. 29. Liens. — Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the Owner, a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that the releases and receipt include all the labor and material for which a lien might be filed; but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Owner, to indemnify him against any claim by lien or otherwise. If any lien or claim remain unsatisfied after all payments are made, the Contractor shall refund to the Owner all moneys that the latter may be compelled to pay in discharging such lien or claim, including all costs and a reasonable attorney's fee.

Art. 30. Permits and Regulations. — The Contractor shall obtain and pay for all permits and licenses, but not permanent easements, and shall give all notices, pay all fees, and comply with all laws, ordinances, rules and regulations bearing on the work. If the drawings and specifications are at variance therewith, the Contractor shall notify the Architect in writing before the work is performed and the value of any necessary changes shall be adjusted under Art. 24. If any of the Contractor's work shall be done contrary to such laws, ordinances, rules, and regulations, without such notice, he shall bear all costs arising therefrom.

Art. 31. Royalties and Patents. — The Contractor shall pay all royalties and license fees and shall defend all suits or claims whatsoever for infringement of any patent rights and shall save the Owner harmless from loss on account thereof.

Art. 32. Use of Premises. — The Contractor shall confine his apparatus, the storage of materials and the operations of his workmen to limits indicated by law, ordinances, permits or directions of the Architect and shall not encumber the premises with his materials.

The Contractor shall not load or permit any part of the structure to be loaded with a weight that will endanger its safety.

The Contractor shall enforce the Architect's instructions regarding signs, advertisements, fires and smoking.

Art. 33. Cleaning Up. — The Contractor shall at all times keep the premises free from accumulations of waste material or rubbish caused by his employees or work, and at the completion of the work he shall remove all his rubbish from and about the building and all his tools, scaffolding and surplus materials and shall leave his work clean and ready for use. In case of dispute the Owner may remove the rubbish and charge the cost to the several contractors as the Architect shall determine to be just.

Art. 34. Cutting, Patching and Digging. — The Contractor shall do all cutting, fitting or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors shown upon, or reasonably implied by, the Drawings and Specifications for the completed structure and he shall make good after them, as the Architect may direct.

Any cost caused by defective or ill-timed work shall be borne by the party responsible therefor.

The Contractor shall not endanger any work by cutting, digging or otherwise and shall not cut or alter the work of any other contractor, save with the consent of the Architect.

Art. 35. Delays. — If the Contractor is delayed in the completion of the work by any act or neglect of the Owner or the Architect, or of any employee of either, or by any other contractor employed by the Owner, or by changes ordered in the work, or by strikes, lockouts, fire, unavoidable casualties or any causes beyond the Contractor's control, or by delay authorized by the Architect pending arbitration, or by any cause which the Architect shall decide to justify the delay, then the time of completion shall be extended for such reasonable time as the Architect may decide.

No such extension shall be made for delay occurring more than seven days before claim therefor is made in writing to the Architect. In the case of a continuing cause of delay, only one claim is necessary.

If no schedule is made under Art. 3, no claim for delay shall be allowed on account of failure to furnish drawings until two weeks after demand for such drawings and not then unless such claim be reasonable.

Art. 36. Owner's Right to Do Work. — If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the Owner, after three days' written notice to the Contractor, may, without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor; provided, however, that the Architect shall approve both such action and the amount charged to the Contractor.

Art. 37. Owner's Right to Terminate Contract. — If the Contractor should be adjudged a bankrupt, or if he should make a general assignment for the benefit of

his creditors, or if a receiver should be appointed on account of his insolvency, or if he should, except in cases recited in Article 35, persistently or repeatedly refuse or fail to supply enough properly skilled workmen or proper materials, of if he should fail to make prompt payment to subcontractors or for material or labor, or persistently disregard laws, ordinances or the instructions of the Architect, or otherwise be guilty of a substantial violation of any provision of the Contract, then the Owner, upon the certificate of the Architect that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor seven days' written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools and appliances thereon and finish the work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price shall exceed the expense of finishing the work, including compensation to the Architect for his additional services, such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the Owner. The expense incurred by the Owner as herein provided, and the damage incurred through the Contractor's default, shall be certified by the Architect.

Art. 38. Contractor's Right to Stop Work or Terminate Contract. — If the work should be stopped under an order of any court, for a period of three months, through no act or fault of the Contractor or of any one employed by him, or if the Owner should fail to pay to the Contractor, within seven days of its maturity and presentation, any sum certified by the Architect or awarded by arbitrators, then the Contractor may, upon three days' written notice to the Owner and the Architect, stop work or terminate this Contract and recover from the Owner payment for all work executed and any loss sustained upon any plant or material and reasonable profit and damages.

Art. 39. Damages. — If either party to this Contract should suffer damage by delay or otherwise, except as provided in Art. 40, because of any act or neglect of the other party or of any one employed by him, then he shall be reimbursed by the other party for such damage.

Claims under this clause shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the time of final payment, except in case of claims under Article 16, and shall be adjusted by agreement or arbitration.

Art. 40. Mutual Responsibility of Contractors. — Should the Contractor (see Art. 1 (c)) cause damage to any other person (see Art. 1 (e)) employed on the work, the Contractor agrees, upon due notice, to settle with such person by agreement or arbitration, if such person will so settle. If such person sues the Owner on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor, who shall, at his own expense, defend such proceedings and, if any judgment against the Owner arise therefrom, the Contractor shall pay or satisfy it and pay all cost incurred by the Owner.

The Contractor, if damaged by any person held to the Owner by stipulations such as the above, agrees to settle with such person by agreement or arbitration and in no case to sue the Owner on account of such damage.

Art. 41. Separate Contracts. — The Owner reserves the right to let other contracts in connection with this work. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coördinate his work and theirs.

If any part of the Contractor's work depends for proper execution or results upon the work of any other contractor, the Contractor shall inspect and promptly report to the Architect any defects in such work that render it unsuitable for such proper execution and results. His failure so to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other contractor's work after the execution of his work.

To insure the proper execution of his subsequent work the Contractor shall measure work already in place and shall at once report to the Architect any discrepancy between the executed work and the drawings.

Art. 42. Assignment. — Neither party to the Contract shall assign the Contract without the written consent of the other, nor shall the Contractor assign any moneys due or to become due to him hereunder, without the previous written consent of the Owner.

Art. 43. Subcontracts. — The Contractor shall notify the Architect in writing of the names of subcontractors proposed for the principal parts of the work and for such others as the Architect may direct and shall not employ any that the Architect may within a reasonable time object to as incompetent or unfit.

The Contractor may in his discretion or shall, if so required, submit with his proposal, a list of subcontractors. If the change of any name on such list is required or permitted after signature of agreement, the contract price shall be increased or diminished by the difference between the two bids.

The Architect shall, on request, furnish to any subcontractor, wherever practicable, evidence of the amounts certified to on his account.

The Contractor agrees to be fully responsible to the Owner for the acts or omissions of his subcontractors and of any one employed either directly or indirectly by him or them, and this contractual obligation shall be in addition to the liability imposed by law upon the Contractor for bodily injuries or death through negligence in the cases covered by Article 19 hereof.

Nothing contained in the Contract Documents shall create any contractual relation between any subcontractor and the Owner.

Art. 44. Relations of Contractor and Subcontractor. — The Contractor agrees to bind every subcontractor and every subcontractor agrees to be bound, by the terms of the General Conditions, Drawings and Specifications, as far as applicable to his work, including the following provisions of this Article, unless specifically noted to the contrary in a subcontract approved in writing as adequate by the Owner or Architect.

The Subcontractor agrees —

(a) To be bound to the Contractor by the terms of the General Conditions, Drawings and Specifications and to assume toward him all the obligations and responsibilities that he, by those documents, assumes toward the Owner.

(b) To submit to the Contractor applications for payment in such reasonable time as to enable the Contractor to apply for payment under Article 26 of the General Conditions.

(c) To make all claims for extras, for extensions of time and for damages for delays or otherwise, to the Contractor in the manner provided in the General Conditions for like claims by the Contractor upon the Owner, except that the time for making claims for extra cost as under Article 25 of the General Conditions is one week.

The Contractor agrees —

(d) To be bound to the Subcontractor by all obligations that the Owner assumes to the Contractor under the General Conditions, Drawings and Specifications and by all the provisions thereof affording remedies and redress to the Contractor from the Owner.

(e) To pay the Subcontractor, upon the issuance of certificates, if issued under the schedule of values described in Article 26 of the General Conditions, the amount allowed to the Contractor on account of the Subcontractor's work to the extent of the Subcontractor's interest therein.

(f) To pay the Subcontractor, upon the issuance of certificates, if issued otherwise than as in (e), so that at all times his total payments shall be as large in proportion to the value of the work done by him as the total amount certified to the Contractor is to the value of the work done by him.

(g) To pay the Subcontractor to such extent as may be provided by the Contract Documents or the subcontract, if either of these provides for earlier or larger payments than the above.

(h) To pay the Subcontractor on demand for his work or materials as far as executed and fixed in place, less the retained percentage, at the time the certificate should issue, even though the Architect fails to issue it for any cause not the fault of the Subcontractor.

(j) To pay the Subcontractor a just share of any fire insurance money received by him, the Contractor, under Article 21 of the General Conditions.

(k) To make no demand for liquidated damages or penalty for delay in any sum in excess of such amount as may be specifically named in the subcontract.

(l) That no claim for services rendered or materials furnished by the Contractor to the Subcontractor shall be valid unless written notice thereof is given by the Contractor to the Subcontractor during the first ten days of the calendar month following that in which the claim originated.

(m) To give the Subcontractor an opportunity to be present and to submit evidence in any arbitration involving his rights.

(n) To name as arbitrator under Article 45 of the General Conditions the person nominated by the Subcontractor, if the sole cause of dispute is the work, materials, rights or responsibilities of the Subcontractor; or, if of the Subcontractor and any other subcontractor jointly, to name as such arbitrator the person upon whom they agree.

The Contractor and the Subcontractor agree that —

(o) In the matter of arbitration, their rights and obligations and all procedure shall be analogous to those set forth in Article 45 of the General Conditions.

Nothing in this Article shall create any obligation on the part of the Owner to pay to or to see to the payment of any sums to any Subcontractor.

Art. 45. Arbitration. — Subject to the provisions of Article 10, all questions in dispute under this Contract shall be submitted to arbitration at the choice of either party to the dispute.

The general procedure shall conform to the laws of the State in which the work lies, and wherever permitted by law the decision of the arbitrators may be filed in court to carry it into effect.

The demand for arbitration shall be filed in writing with the Architect, in the case of an appeal from his decision, within ten days of its receipt and in any other case within a reasonable time after cause thereof and in no case later than the time of final payment, except as to questions arising under Article 16. If the Architect

fails to make a decision within a reasonable time, an appeal to arbitration may be taken as if his decision had been rendered against the party appealing.

The parties may agree upon one arbitrator; otherwise there shall be three, one named in writing by each party and the third chosen by these two arbitrators or, if they fail to select a third within ten days he shall be chosen by the presiding officer of the nearest Bar Association. Should the party demanding arbitration fail to name an arbitrator within ten days of his demand, his right to arbitration shall lapse. Should the other party fail to choose an arbitrator within such ten days, the Architect shall appoint such arbitrator. Should either party refuse or neglect to supply the arbitrators with any papers or information demanded in writing, the arbitrators are empowered by both parties to take ex parte proceedings.

The arbitrators shall act with promptness. The decision of any two shall be binding on all parties to the dispute. The decision of the arbitrators upon any question subject to arbitration under this Contract shall be a condition precedent to any right of legal action.

The arbitrators, if they deem that the case demands it, are authorized to award to the party whose contention is sustained such sums as they shall deem proper for the time, expense and trouble incident to the appeal and, if the appeal was taken without reasonable cause, damages for delay. The arbitrators shall fix their own compensation, unless otherwise provided by agreement, and shall assess the costs and charges of the arbitration upon either or both parties.

The award of the arbitrators must be in writing and, if in writing, shall not be open to objection on account of the form of the proceedings or the award.

CHAPTER XVIII

BOND

The comparative values of personal Bonds and of surety company Bonds, and of certified checks, have been discussed previously. This chapter is concerned mainly with the form of Bonds.

The Contract Bond adopted by the American Railway Engineering Association has the following form:

A. **BOND**

Know all Men by These Presents:
That the undersigned.....
are held and bound unto the.....
in the sum of.....dollars,
lawful money of the United States of America (or Canada, as the case may be), to be paid to said.....its successors and assigns, to which payment the undersigned, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns.

The Condition of this Obligation is that if.....
Contractor, shall faithfully furnish and do everything required in the contract, executed in writing, dated.....19..
between.....Contractor, and.....Company,
for.....this obligation shall become of no effect; otherwise it shall continue in full force.

Signed, sealed and delivered this.....day of.....19...
Attest:

.....(SEAL)

This is substantially the same in form as that used by the Cambridge Bridge Commission, the principal point of difference being that the latter refers to the "foregoing Contract" contained probably in a single pamphlet, while the Bond above describes the Contract. The Cambridge Bridge form is this:

B. **BOND**

Know all Men by These Presents:
That the undersigned are held and bound unto the Cambridge Bridge Commission in the sum of two hundred thousand (200,000) dollars, lawful money of the United States of America, to be paid to said Commission or its assigns, to which

payment, well and truly to be made, the undersigned jointly and severally bind themselves, their heirs, executors, administrators, successors and assigns.

The Condition of this Obligation is, that if the party designated as Contractor in the foregoing contract shall faithfully furnish, and do everything required therein of said party, this obligation shall become of no effect, otherwise it shall continue in full force.

Signed, sealed and delivered this January 20, 1904.

THE CITY TRUST SAFE DEPOSIT AND GUARANTY COMPANY OF PHILADELPHIA.

Attest: By Jos. A. Sinn, 2d Vice Pres. (SEAL)

Charles H. Laird, Jr.,
Asst. Secty.

The Corporation or Company signing above is incorporated in the State of Pennsylvania, and has its usual place of business in Massachusetts at 23 Central Street, Boston.

The distinguishing feature of either of these is its simplicity. The Contractor has made his Contract and agreed to furnish and to do certain things. A failure to keep his agreement brings the Bond into action. If the Contract recites all that is required of the Contractor, this simple Bond is sufficient. If the first draft of the Contract omits any point ordinarily specially covered in the Bond, the Contract should be revised (before the letting) so that in its final form it will cover everything necessary. For instance, the indemnity clause in the Uniform Contract Form makes an indemnity clause in the Bond superfluous.

In the above forms of Bond, the Contractor is not made the "principal" of the Bond. Why should he be so made the principal? If he does not do what he agreed in his Contract, if he defaults, why should one have further disagreement and trouble with him? The direct way is to reach the surety. A lawsuit with the surety may be unnecessary if the surety is businesslike. The surety will, no doubt, have an agreement with the Contractor by which to recoup himself if the Contractor is solvent, but that is his affair. It is cleaner cut for the railroad, or the City, to look to the surety directly, rather than to straddle between the Contractor and the surety.

The question may arise whether a surety company will sign a Bond in the above form. An answer to this is that the following companies did sign the above form of Bond of the Cambridge Bridge Commission:

The Ætna Indemnity Company.
United States Fidelity and Guaranty Company.
The City Trust, Safe Deposit, and Surety Company of Philadelphia.
American Surety Company of New York.
Empire State Surety Company.
National Surety Company.
Fidelity and Deposit Company of Maryland.

Another form, even shorter, but in essentials the same, was signed by the Metropolitan Surety Company and is shown here:

C. **BOND**

The undersigned surety company hereby binds itself, its successors and assigns, to pay to the Cambridge Bridge Commission the sum of two thousand (2,000) dollars.

This obligation is upon the condition that if the party to the contract hereto annexed, other than the city, shall faithfully furnish and do everything therein required of the party, the obligation shall become of no effect, otherwise it shall continue in full force.

Signed, sealed and delivered this January 3, 1907.

METROPOLITAN SURETY COMPANY,
(SEAL) A. S. Brown, Jr.
Manager and Attorney in Fact.

Attest:
Harry A. Chandler,
Attorney in Fact.
Corporation is of the state of New York.[1]
President is John F. Candlet.
Treasurer is Frank A. Condon.
Place of business in Boston is 85 Water Street.

A slightly longer form is the following:

D. **BOND**

Know all Men by These Presents:

That we,.....
as principal and.....
as surety are held and firmly bound unto the Commonwealth of Massachusetts in the sum of.....
lawful money of the United States of America, to be paid to the Commonwealth, to which payment, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the said principal has made a contract with the Commonwealth, bearing date the.....day of.....1906, for.....

Now, the Condition of this Obligation is such that, if the said principal shall in all things stand to and abide by and well and truly keep and perform all the agreements, terms and conditions of said contract on his part to be kept and performed, and shall also pay for all labor performed or furnished, and for all materials used in the carrying out of said contract, then this obligation shall be void; otherwise it shall remain in full force and virtue.

In Witness Whereof, we hereunto set our hands and seals this..... day of.....in the year nineteen hundred and.....

.....(SEAL)
.....(SEAL)

And the following differs mainly in phraseology from the form next above:

E. **BOND FOR PERFORMANCE OF CONTRACT**

Know all Men by These Presents,

That we..... as principal; and .....as surety, are held and firmly bound unto The City of New York, in the sum of..... .....dollars ($.....), lawful money of the United States of America, to be paid to The City of New York, or to its certain attorney, successors or assigns, for which payment, well and truly to be made, we bind ourselves, our successors and our several and respective heirs, executors and administrators, jointly and severally, firmly by these presents.

Sealed with our seals. Dated this.....day of .....one thousand nine hundred and nine.

Whereas, the above bounden..... by an instrument in writing, bearing even date with these presents, has contracted with The City of New York to furnish all the materials and labor for, and in good, sufficient and workmanlike manner, construct Hill View reservoir and portions of Yonkers and Van Cortlandt siphons in the City of Yonkers, Westchester county, New York:

Now, **Therefore,** the condition of the above obligation is such, that if the said ..... shall well and truly, and in a good, sufficient and workmanlike manner, perform the said contract, and each and every provision therein contained on his part to be done and performed, and complete the same in accordance with the terms and provisions therein stipulated, and in each and every respect comply with the conditions therein contained, then this obligation shall be void, otherwise it shall remain in full force and virtue.

(SEAL).....Contractor.

(SEAL).....Surety.

The following is more extensive:

F. **BOND**

Know all Men by These Presents,

That.....of..... hereinafter called the Contractor and ..... and ..... hereinafter called the Sureties are held and firmly bound unto The City of New York, hereinafter called the City, in the sum of forty thousand dollars ($40,000) lawful money of the United States of America, to be paid to the City, for which payment well and truly to be made the Contractor and the Sureties do hereby bind themselves and their, and each of their, executors, administrators, successors and assigns firmly by these presents, as follows: The Contractor to be so held and bound for the full amount of the said sum of forty thousand dollars ($40,000) and

each of the said Sureties to be so held and bound only for a portion of said sum as follows:

The said.....
for the sum of.....
.....dollars ($.....); the said.....
for the sum of.....
.....dollars ($.....); the said.....
for the sum of.....
.....dollars ($.....); and the said.....
for the sum of.....
.....dollars ($.....).....

In Witness Whereof, The Contractor and the Sureties have hereunto set their hands and seals and such of them as are corporations have caused their respective seals to be hereto affixed and these presents to be attested by the proper officers, this.....day of.....1916.

Whereas, the City by the Public Service Commission for the First District (hereinafter called the "Commission") is about to enter into a contract with the Contractor for the construction by the Contractor of station finish for that portion of a Rapid Transit Railroad known as Sections Nos. 7 to 11, inclusive, of Route No. 5, in the Borough of Manhattan, in the City of New York; and

Whereas, The City is about to enter into such contract with the Contractor upon the condition, and not otherwise, that this bond shall be given to the City, and upon the faith thereof,

Now, Therefore, the condition of the foregoing obligation is such that if the Contractor shall faithfully perform all the conditions, covenants and requirements specified and provided for in said contract, then this obligation shall be null and void, but else it shall remain in full force and virtue.

It is Expressly Agreed between the City and the Sureties (and it is only upon such agreement that the City accepts this bond) that the Sureties will and do waive any and every notice of default on the part of the Contractor; that they will and do permit the City to extend the time of the Contractor to do any act; that no omission on the part of the City to give any notice of extension of time granted by or on behalf of the City shall be availed of by the Sureties or any of them as a defence upon this bond; that the Sureties shall not set up or have any defence upon this bond by reason of any alteration of the said contract unless such alteration shall be represented by a formal written instrument duly executed between the City and the Contractor which shall have been duly authorized by a vote of the Commission and entered into without the consent of the Sureties; and that in case of such alteration, however made, the same shall be a defence to the Sureties only to the extent of the actual injury or damage caused to the Sureties by said alteration.

If the Contract provides for changes in the Contract, and covers all requirements upon the Contractor, the final clause appears unnecessary. If provisions for extension of time are considered necessary they should be made a part of the Contract.

A clause like the following is sometimes added to the Bond:

G. And the surety hereby stipulates and agrees that no change, extension, alteration or addition to the terms of the Contract or Specifications shall in any wise affect his obligation to this Bond.

The Contract, however, should provide for changes and corrections. If there are extensions, alterations, or additions which virtually make a new Contract, the proper way is to secure the written "consent" of the surety. This consent will be to a specific change in the Contract, and ought to hold. It might well be a question whether the provision shown above would be effective in case the Contract was very materially changed, to the extent, perhaps, of making a new Contract in some features.

The form shown below has points both of similarity and of difference in comparison with the other forms shown:

H. **BOND TO ACCOMPANY THE CONTRACT**

Know all Men by These Presents,

That we,.....
as principal, and the .....
duly authorized to transact business in Massachusetts, and having an office at
.....
as surety, are held and firmly bound unto the City of Boston, in the sum of.....
.....dollars ($.....) to be paid the City of Boston, for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

This Obligation is upon the Condition that if the party to the contract hereto annexed, other than the City, shall faithfully furnish, keep and do everything therein required of the party on his part to be furnished, kept and performed, and shall also pay for all labor performed or furnished, and for all materials used in the carrying out of said contract, and shall indemnify the City and the Commission for any failure so to do, as provided in Section 23, Chapter 514 of the Acts of 1909 and amendments thereof, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and virtue.

The bond is to remain in force two years after the completion of the contract and if legal proceedings are then pending against the City or the Commission alleging injury to person or property in the performance of this contract or have then been brought by the City or the Commission against the Contractor said bond shall remain in force until payment to the City or the Commission of the amount with interest of any judgment rendered therein.

In Witness Whereof, we hereunto set our hands and seals this .....
.....day of.....
in the year nineteen hundred and sixteen.

..... (SEAL)

There is considerable question as to the advisability of putting any time limit on the Bond. The risk is mainly a function of the size and quality of the Contract rather than of the time consumed in executing it, and the charges of the surety company are properly rated accordingly. As has been stated the premium is now rated upon the amount of the Contract.

The following form of Bond is much more elaborate than any of the preceding forms:

I. CONTRACTOR'S BOND

Know all Men by These Presents,

That we .....as principal,
and .....as surety,
are held and firmly bound unto The Sanitary District of Chicago in the penal sum of **Three Thousand Dollars** ($3000) lawful money of the United States, for the payment of which sum of money well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

Sealed with our hands and seals and dated this .....
day of .....A.D. 191 .

The Condition of the Above Obligations is Such that whereas the above bounden .....
has entered into a certain contract with The Sanitary District of Chicago, bearing date the .....day of .....A.D. 1916, for doing all the work and furnishing all the materials, tools, labor, appliances and appurtenances necessary for **The Furnishing, Fabrication, and Delivery of the Metal Work for the Superstructure of a Double Track Bridge at the Crossing of the Chicago and Joliet Electric Railway Over the Calumet-Sag Channel of the Sanitary District of Chicago at Lambert Station, in the Township of Lemont, County of Cook, State of Illinois.**

Now, if the said .....
shall in all respects well and truly keep and perform the said contract on his part in accordance with the terms thereof, and specifications therein contained and the plans thereto attached, and in the time and manner therein prescribed, and further, shall protect, indemnify, keep and save harmless The Sanitary District of Chicago against all liabilities, judgments, costs, damages, expenses and attorney's fees, which may in anywise come against said The Sanitary District of Chicago in consequence of the awarding of such contract, or which may in anywise result from the carelessness or neglect of said .....
or his agents, employees or workmen, in any respect whatsoever, or which may result on account of any infringement of any patent by reason of the materials, machinery, processes, devices or apparatus used or furnished in the performance of said contract, and moreover shall pay to said The Sanitary District of Chicago any sum or sums of money determined by the Engineer to be due said The Sanitary District of Chicago by reason of any failure or neglect in the performance of said contract, and shall pay all valid claims and demands whatsoever, including all valid claims and demands for first aid, medical, surgical and hospital services and for compensation for accidental injuries or deaths, under the provisions of the Act of the General Assembly of the State of Illinois entitled "An Act to promote the general welfare of the people of this State by providing compensation for accidental injuries or death suffered in the course of employment within this State; providing for the enforcement and administering thereof, and a penalty for its violation, and repealing an Act entitled 'An Act to promote the general welfare of the people of this State by providing compensation for accidental injuries or death suffered in the course of employment,' approved June 28, 1913, in force July 1, 1913, as amended

by an Act of the State of Illinois, in force July 1, 1915, which may accrue to each and every person who shall be employed by said .....
.....in or about the performance of said contract or which shall accrue to the beneficiaries of any such person, then is this obligation to be null and void, otherwise to remain in full force and effect.

And it is Hereby Expressly Understood and Agreed, and made a condition hereof, that any judgment rendered against said The Sanitary District of Chicago, as aforesaid, in any suit for damages occasioned by carelessness or neglect of said.....
or his agents, employees or workmen in the premises, and also that any judgment of any court or award of any Board of Arbitrators or of the State Industrial Board of the State of Illinois rendered against said The Sanitary District of Chicago in any suit or claim arising under the said Act of the General Assembly of the State of Illinois, approved June 28, 1913, in force July 1, 1913, as amended by an Act of the General Assembly of the State of Illinois, in force July 1, 1915, relating to compensation for accidental injuries or deaths suffered by employees, in the course of their employment, when notice of the pendency of such suit, hearing or arbitration shall have been given said.....
shall be conclusive against each and all parties to this obligation, as to amount, liability and all other things pertaining thereto.

..... (SEAL)
..... (SEAL)
..... (SEAL)
..... (SEAL)

Approved as to form.....A.D. 191 .

.....
Assistant Attorney.

.....
Attorney.

It will hardly be profitable to extend the discussion by including additional forms.

In some New York Contracts, the Contractor is allowed to deposit cash or securities instead of filing a Bond. A Contractor who owns sufficient securities to satisfy the Board, is thus relieved of the fee to the surety company while the City is fully protected. Such a provision is shown below.

J. Article XXVIII. The Contractor may at his option deposit with the Comptroller in lieu of said bond or of any part thereof, an equal amount in cash or in value of securities. If securities be deposited they shall be securities of which a schedule shall be hereto annexed, entitled Schedule of Securities, and there shall be deposited with them the written approval of the Commission which it shall give when satisfied as to the character thereof. In case any of the securities so deposited shall, in the opinion of the Commission, at any time cease to be of the character of securities in which the savings banks of the State of New York are then authorized by law to invest moneys, or shall, in the opinion of the Commission, at any time become of less value than the value stated for it or them in the said schedule, — then within ten days after notice to the Contractor of the objection of the Commis-

sion, the Contractor shall either substitute therefor securities which shall be approved by the Commission as of the character aforesaid and as being of at least the value of the former securities to which the Commission shall have objected as such value was originally stated in the said schedule, or shall deposit with the Comptroller in cash the amount of such value of such former securities as so originally stated. In case the Contractor shall not within such ten (10) days or such further time, if any, as the Commission may grant substitute such new securities or make such deposit of cash, he shall, if the Commission so elect, be deemed to be in default in the performance of his obligation under this contract; and in addition to any and all other remedies against the Contractor or his sureties, the Commission may require the Comptroller to deduct from any moneys then due or which thereafter may become due to the Contractor under this contract, the amount of the original valuation of such securities objected to, and to hold such amount in lieu of such securities, as if part of the original deposit or as if deposited with the Comptroller aforesaid, and such amount shall in such case be deemed to be paid to the Contractor upon this contract. The securities so objected to shall upon such substitution of securities or deposit of cash in lieu thereof be returned to the Contractor.

The City shall from time to time collect all interest, dividends or other profits or income on any securities deposited by the Contractor, and shall, when and as collected, pay the same to the Contractor. If the securities are in the form of coupon bonds the coupons as they respectively become due shall be delivered to the Contractor. If the deposit be made in cash, interest shall be paid to the Contractor at the average rate of interest received by the City on its bank balances during such period. Provided, however, that the Contractor shall not be entitled to interest, dividends or other profits or income on any securities the proceeds of which shall be used or applied as hereinafter provided.

Article XXIX. The said deposit, whether in cash or securities, in the form and as the same shall at any time be, shall be security for the faithful performance by the Contractor of all the covenants, conditions and requirements specified and provided for in this contract. In case of any default on the part of the Contractor in such performance, and in the further case that the City shall for or by reason of such failure, whether by reason of employment of another contractor or contractors or otherwise, incur or become liable for expense through such default as hereinafter provided, then the Comptroller shall forthwith pay or apply to the use of the City the amount of such expense out of the said deposit in cash or securities or out of the portion of the deposit remaining at the time.

Article XXX. The Comptroller shall, upon the requirement of the Commission, in order to make such payment or application to the use of the City, sell at public auction in the City of New York any of the securities which may then constitute part of such deposit upon notice to be published in three daily newspapers, the first publication to be not less than ten (10) days before the sale and such publication to be made three times within such ten (10) days. Any such sale shall be adjourned from time to time if requested by the Commission. The Comptroller shall, upon the requirement of the Commission, deduct from the proceeds of any such sale, all expenses thereof and of such advertisement, and pay and apply to the use of the City so much of the residue of such proceeds as may be necessary for the purpose aforesaid. And the Contractor within ten (10) days after notice from the Commission so to do shall (unless the time be extended by the Commission) by further deposit, according to the requirement of the Commission, of money or securities of the character aforesaid approved by the Commission restore the said

deposit with the Comptroller to the full amount originally required. In addition to, or in lieu of, the sale above provided for, the Commission may, in the name of and in behalf of the City, bring any appropriate suit or proceeding in any proper court to enforce the lien and claim of the City in and upon the said deposit, whether such deposit be in money or securities.

Some forms provide that a surety Bond shall be furnished instead of the certified check, and the following form has been used:

K. **PROPOSAL BOND**

In consideration of the premises, and of One Dollar to us and each of us in hand paid by The City of ....., and of other good and valuable considerations, the receipt whereof is hereby acknowledged:

We, the undersigned, jointly and severally, consent and agree, that if the contract for which the preceding bid or proposal is made be awarded to the person or persons making the same, we will, upon its being so awarded, become bound as his or their or its sureties for the faithful performance of said contract; and if the said person or persons shall omit or refuse to execute such contract and give the proper security within ten days after written notice that the same is ready for execution, is so awarded, we will pay, without proof of notice or demand, to the City, any difference between the sum to which such person or persons would be entitled upon the completion of such contract, and the sum which the City may be obliged to pay to the person or persons to whom the contract shall be awarded at any subsequent letting; the amount in each case to be calculated upon the estimated quantities of work, labor and materials by which the bids are tested; provided, however, that the estimated amount under the subsequent letting be greater.

In Witness Whereof, we have hereunto set our hands, this..... day of.....one thousand nine hundred and.....

(Note. Each and every surety must sign below and state his place of business or residence.)

.....

No seal is shown here; apparently reliance is placed, in this form, upon "One Dollar.....and other good and valuable considerations" as the consideration of the agreement, while in the other forms reliance is placed upon the seal.

In the form above there appears to be no limit to the liability incurred by the sureties, and most surety companies would probably be at some loss as to what charges to make for furnishing such a Bond.

Another form somewhat similar in its general features provides in case of failure to sign the Contract and furnish Bond:

L. We bind ourselves, ...to pay.....the sum of .....thousand dollars ($.....) as liquidated damages to reimburse said Board for expenses or delays incurred in making another letting for the construction of, etc.....and we do further bind ourselves to pay to said Board, the difference, not exceeding .....thousand dollars ($.....) between the amount of the accepted pro-

posal of the undersigned bidder, and the amount for which said Board may procure and accept a bid or proposal from other parties to do said work, if the latter amount be in excess of the amount stated in the proposal of the undersigned bidder.

The criticism of both of the above is as to substance rather than as to form. Most Engineers and most Contractors would probably prefer that the Bond should cover a specific sum just as the certified check does, to be forfeited in case of failure on the part of the Contractor to sign the Contract and furnish the Contract Bond. The general practice is in harmony with this view.

If a Bond of this sort is to be furnished it may simply and properly be in the following form similar to that of the Contract Bond used by the Cambridge Bridge Commission, and that approved by the American Railway Engineering Association.

M. **PROPOSAL BOND**

Know all Men by These Presents:

That the undersigned.....
are held and bound unto the (name the Board or Company) in the sum of.....
.....dollars, lawful money of the United States of America, to be paid to the said.....its successors and assigns, to which payment the undersigned, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns.

The condition of this obligation is such that in case the Proposal made by .....Contractor for (briefly indicate the work), to be opened .....A.D. 19.., shall be accepted by (name the Board or Company), if.....Contractor shall sign the Contract and furnish the Contract Bond in all respects as provided and agreed in said Proposal, this obligation shall become of no effect; otherwise it shall continue in full force.

Signed, sealed and delivered this.....day of.....A.D. 19..

Attest:

(SEAL)

CHAPTER XIX

SPECIFICATIONS

As has been stated previously, it is not always possible to draw a clear dividing line between Contract provisions and Specifications. It has also been stated that the Specifications are sometimes bodily included within the limits of the Contract, and are sometimes contained in a contemporary document which by express provision is made a part of the Contract, as the plans, in their turn, are made a part of the Contract or of the Specifications.

Strictly, as to form, the Contract should be an agreement and the Specifications not. The latter should specify qualities of materials, methods, and processes, and the quality or condition of any resulting structure. In form, the Specifications should state that a certain material shall have specified qualities, and not that the Contractor shall furnish such material of specified qualities; or that a process shall be carried out in a certain way or under certain conditions rather than that the Contractor shall conduct the process in this particular way; or it should provide that the structure shall have specified qualities. The form, however, is less important than the substance.

For a general statement the Contract should cover an agreement to do work, and the Specifications should apply to a particular class of work as well as to the particular work in hand. Practically it is often difficult not to overrun the theoretical line between the two on one side or the other.

Clearness of description is of the utmost importance. For this a clear vision of what is wanted is the first requisite. To this must be added sufficient ability in the use of language to make clear to others what the Engineer sees clearly. An able Contractor has stated that his training in descriptive geometry was of great value to him because it permitted him to visualize a piece of work.

There are several mediums of expression, among them: spoken words, writings, drawings, and models, all of which may at times be used to describe work to be done. Specifications in writing, and drawings are regularly used to express what the work is to be, or perhaps how it is to be done. For some classes of work, models are well-nigh essential; and

the frequent use of moving pictures for such purposes is by no means improbable in the early future. They have, however, the disadvantage, ordinarily, of not being available for frequent examination.

Specifications should be logically arranged, partly for clearness, partly so that two clauses differently worded shall not be written covering in whole or in part the same thing. Otherwise the meaning may be made obscure, and while the decision of the Chief Engineer may in general be final as to the meaning of a clause so far as technical questions are involved, the court, if appealed to, will not allow its jurisdiction to be ousted, certainly as to whether a breach of contract has occurred, and commonly as to the meaning of a Contract which is to be decided. A Contract means what it says and the Chief Engineer cannot directly change it, or misinterpret it, which is the equivalent of changing it. The quantities of work or the quality of construction are matters wherein the decision of the Chief Engineer will not be disturbed unless for lack of good faith on his part, as has been stated.

Specifications and drawings not only express what work is to be done but they also state in many cases existing conditions as to soil or foundations or borings, or other facts necessary for the Contractor for an intelligent bid.

Upon the Company or the City, properly devolves the duty of determining the conditions as to soil, foundations, and other matters upon which the construction depends and upon which the bids must be based. It is uneconomical to require that each Contractor shall make borings or extensive surveys or investigations to determine conditions, and this should not be expected of him. A failure to know conditions means, in the long run, bids from the Contractors high enough to cover risk, and it is good economic law that the Company is the gainer from reducing the Contractor's risk to a minimum.

The Company or the City oftentimes refuses or fails to provide money or opportunity to make the proper preliminary investigations of conditions necessary both for adequate designing and for intelligent bidding. Friction and lawsuits are among the probable sequences. The Engineer should exercise great care in stating facts or conditions whether in the Specifications and drawings, or in the Information for Bidders. He should state only facts and not conclusions derived from them. If borings have determined certain ledge elevations, these should be shown. Drawing contours based on these as probable elevations of ledge is unwise; let the Contractor do this if he cares to, or let him rely on the elevations shown.

With relation to Specifications and drawings, however, it is sometimes provided:

Bidders or their authorized agents are expected to examine the maps and drawings in this office, which are open to their inspection, to visit the locality of the work, and to make their own estimates of the facilities and difficulties attending the execution of the proposed contract, including local conditions, uncertainties of the weather, and all other contingencies.

In a case where this provision had been made, the United States Supreme Court rendered a decision in favor of the Contractor and against the United States as follows:

"Where the specifications for repair of a dam say that the existing dam is now backed with broken stone, sawdust and sediment, and it is actually backed with solid crib work, the Government must pay the increased cost of removal, notwithstanding other provisions in the specifications notifying bidders to visit the locality, estimate difficulties, and obtain information necessary for an intelligent proposal. The Contractor has a right to rely on a positive assertion of such a fact without an investigation to prove its falsity.

"It was a positive and material representation as to a condition presumably within the knowledge of the Government, and upon which, in the absence of any other provision or warranty, the plaintiffs had a right to rely."

The Specifications put some burden upon the Contractor to learn conditions and the lower court thought that this relieved the Government. The Supreme Court on the facts in this case thought otherwise and granted relief to the Contractor.

In another case as stated by the court:

"The specifications provided: 'The material to be excavated as far as known, is shown by borings, drawings of which may be seen at this office, but bidders must inform and satisfy themselves as to the nature of the material.'

"The material actually to be excavated consisted largely of stumps below the surface of the earth, buried logs, or cemented sand and gravel, none of the sand or gravel being described in said drawings as cemented, and sandstone conglomerate; and such materials were far more difficult and expensive to penetrate and excavate than ordinary sand and gravel as described in the drawings.

"The claimants were forced to rely wholly on the information furnished them, the time not being sufficient to permit them to make their own borings, and they believed the information furnished them to be accurate and reliable."

In this case stumps and other unfavorable material had actually been found by the borings, but were not shown on the plans.

The lower court, in this case also, decided in favor of the Government but the Supreme Court overruled their decision in favor of the Contractor. Whether much importance attached to the fact that time was not available for the Contractor to make borings may well be doubted.

Where the Contract and Specifications make the decision of the Chief Engineer final, it apparently is not good law or morals to deny the Con-

tractor the right to question the decision of the Chief Engineer and at the same time require the Contractor to question statements of fact within the knowledge and functions of the Chief Engineer. It is not altogether improbable that at some future time a court will hold substantially in the following form, that where the decision of the Chief Engineer is made final, his position has so far the fiduciary quality that it will amount to constructive fraud for him to give or withhold information as to material facts by which the Contractor is reasonably misled to his disadvantage either in making his bid or handling his work.

In another case which did not go to suit, a clause read:

> The said Contractors agree that they shall be accountable for the full performance of this contract, and by signing hereof admit that the plans, elevations, sections, specifications and parts before referred to are sufficient for their intended purpose of doing the said work, and that the work can be successfully executed in accordance therewith, without any additional or extra work other than that set forth thereby or necessarily inferred to be done from the general nature and tendency of the plans, drawings and Specifications aforesaid, upon a fair and liberal construction thereof.

The actual conditions were found in one feature to be materially different from those shown on the plans, and the cost of the work was much increased in consequence. There were in other matters hardships for the Contractor not due to information furnished, and for which the Contractor was legally responsible, and the Contractor's lawyer thought that in view of the above clause, the Contractor did not have a good case so that a friendly adjustment resulted. Whether the decisions of the United States Supreme Court quoted above would cover this case is somewhat doubtful. The clause above is in some ways more stringent than that quoted in the decision referred to. Nevertheless, a reasonable interpretation would be that the Contractor's agreement that the plans were sufficient for their intended purpose for doing the work and that the work could be successfully executed, was based upon the facts shown on the plans, facts upon which the Contractor had a right to rely. The Contractor's agreement apparently covered "plans" in the sense of methods and results and did not refer to the accuracy of the map or "plan" in showing existing conditions, and to this extent the Company would be responsible. Whether the court would accept this interpretation is uncertain, but not at all improbable.

This provision occurs in the Specifications for sewer construction in one of our large cities:

> Samples of borings made with a four-inch hand auger, are on file in the Engineer's office. The results are plotted on the profiles for the information of the

Contractor, but are not guaranteed. The Contractor must satisfy himself regarding the character or amount of peat, clay, sand, quicksand, gravel, glacial drift, rock, and all other material to be encountered and work to be performed.

It certainly is impracticable for Contractors to secure this information. It is doubtful whether permits would be granted to ten or twenty Contractors to repeat the borings in a business street of a large city or on private land traversed. The information is peculiarly within the knowledge of the City, and the courts might properly rule that the Contractor had a right to rely on it. In the United States case cited above, the Engineer knew that the borings shown were incomplete and misleading, but that probably was not a controlling consideration in the decision.

Another Specification for important work states:

Wash borings and diamond drill borings have been made at the site of the work. These borings were made in the usual manner and with reasonable care substantially at the places and to the depths shown on the plans. Samples of material obtained from the borings and cores obtained by drilling have been preserved and labelled and can be seen at the office of the Directors. From the results of the borings and samples of material obtained therefrom, lines of material and elevations of rock have been delineated on the plans, but there is no expressed or implied agreement that the surface of the rock or the character of the material is even approximately correct. Bidders should take into account the possibility that the location of the surface of the ledge rock and the character of the overlying material, or other conditions affecting the cost or quantities of work may differ from the indications on the plans.

This clause is so strong that it probably would be sustained by the courts. But in a case like this, only the facts found by the borings should have been shown, and the " lines " should have been omitted.

The evident intent of the Directors was that the Contractors should rely upon this information in making their bids, and the disclaiming of all responsibility for the facts shown might fairly be interpreted as a notice to the bidders that every technicality would be availed of by the Directors during the execution of the Contract.

An additional clause in the same Specifications reads:

For the purpose of obtaining as much information as possible in regard to the meaning of the borings, the Directors have employed an experienced geologist to interpret the results. The report of the geologist is on file at the office of the Directors where it may be consulted by intending bidders, but there is no expressed or implied agreement that the interpretation given by him is even approximately correct.

As to the clause above, there is no reason why the Directors should assume any responsibility for the opinions or interpretation of the geologist and the clause above seems proper. It is to be hoped, however, that the

geologist was not notified that there was no agreement that the facts on which he based his opinions and interpretation were even approximately correct.

In general, Specifications should cover qualities of materials and resulting construction, leaving the Contractor as free as possible as to methods of handling the work. Nevertheless, methods are at times and in cases of the very essence of the work, and must be specified. A commission of engineers formulated a method for constructing the Detroit River Tunnel. Contractors' bids were invited upon that method, and also on any alternate methods suggested. The method already formulated received the lowest bids and that method became of the essence of the Contract. Excavation in bad materials such as quicksand or muck, or under heavy buildings must be handled, in many cases, in specified ways to avoid risk of damage. The Engineer, however, should specify methods only so far as necessary to secure proper results. He should understand further that the Company will be responsible for any resulting damage which results from the method rather than from any lack of skill or care in carrying it out.

It is sometimes specified:

> All materials of whatever nature required in the construction of the work shall be new and of the best quality and of the best fitted for the special use intended.

This is easy to write and doubtless legal, but for most Contracts not economical. A former Chief of Engineers of the United States Army felt at one time that his most useful occupation was writing Specifications. Possibly he was wrong to the extent that, as a matter of organization, he should have selected one of his higher subordinates for this duty. The function of the Engineer, both in making the design and in writing the Specifications, is to use the materials which are adapted to the purpose, and to specify the best when essential, but other than the best where satisfactory results will be obtained at less cost, maintenance and operation being given due consideration. A high order of ability is necessary to do this, but modern economic engineering requires it.

The Specifications should be clear, exact, and sufficient, having in mind that they must serve as a guide not only to the Contractor, but also to the Resident Engineer and to the inspectors. If inexact, and the Chief Engineer afterwards specifies further requirements to secure exactness, a question may arise as to whether this amounts to reading into the Contract a provision not originally contained therein, and a lawsuit may result. The Chief Engineer cannot add to or take away from the Contract, and the court will interpret the Contract. A question has arisen, in specifying the proportions, such as 1 : 2 : 4, by volume for concrete, whether this state-

ment is sufficiently explicit as it fails to fix the method of measurement. If a later requirement be made by the Chief Engineer as to method, it may be found that this is contrary to common custom and lead to suit and an award of damages.

The proper course is to demand a rigid interpretation of the Specifications, which ought to be drawn as a standard for the work to be done, and not as an ideal from which to let down. Specifications, well drawn and impartially enforced, leave no room for suspicion of favoritism. In a Contract required by statute or ordinance to be advertised and let to the lowest bidder, the law, properly interpreted, demands that the work shall be performed according to the terms of the Specifications. A competent Engineer, however, will seldom go out of his way to measure the dimensions of stone better fitted than the average used and required, to see whether every measurement is fully up to standard. If directly appealed to by a workman, however, he can do no otherwise than to insist upon any measurement or other requirement specified.

The terms " or as otherwise directed " and " unless otherwise directed " which occur in some Specifications may be necessary in some cases, or may be quite harmless in others. It may happen, however, that such a qualification, if put in force, will mean materially increased cost to the Contractor, who presumably will make his price higher to correspond when such a term exists. Where conditions allow, the Engineer in drafting Specifications should determine what will be needed and fairly and clearly state it. The Contractor has a legal right to know what his work is to be, so far as this is possible.

It is not intended that the subject of Specifications shall be extensively treated here or treated aside from its legal features; this is a matter of technical engineering. There are standard Specifications for very many classes of construction, and these may be found in the records of various associations or societies. The subject of Specifications has also received attention in various other places. An extensive treatment of the subject may be found in a book published in 1916 on " Contracts, Specifications, and Engineering Relations," by Daniel W. Mead, where about 260 pages are devoted to Specifications, including an extensive bibliography.

INDEX

Abstract of title, 6—9.
Acceptance:
by carrier, 11—9.
negotiable instruments, 10—2, 15, 33.
of offer, 3—2.
of work, 16—77.
sales, 9—8, 14.
Accident, equity, 5—8.
Account, equity, 5—15.
Accounts available to engineers, 17—19.
Acknowledgment:
contracts, 15—4, 17—22.
deeds, 6—8.
Additional contract forms, 17—1-45.
Advertisement, 13—1-17.
bids rejected, 13—9, 16, 17.
bond, 13—2, 9, 11-15.
brief form, 13—10.
check certified by bank cashier, 13—14.
competition, 13—5-7.
deposit for plans, 13—17.
headings, 13—7, 8.
legal requirements, 13—5-7.
printed forms required, 13—11, 12.
sample advertisement, 13—8.
special provisions, 13—9, 16.
time of doing work, 13—16.
why advertise, 13—5.
Agency, 3—1-7.
authorization, 3—2, 4.
creation, 3—2.
delegation of authority, 3—5.
duty of principal, 3—6.
minor, 3—3.
necessity, 3—3.
principal bound, 3—4.
principal certain, 3—3.
Agency — *Continued.*
ratification, 3—2.
responsibility of third party, 3—6.
termination, 3—7.
Agent, 3—2-6.
accounting, 5—15.
duty to principal, 3—6.
kinds, 3—4.
liability, 3—2, 5.
negotiable instruments, 10—14.
vs. servant, 3—1.
Agreement, 3—1.
forms, 16—10.
texts, 16—10, 17—23, 33.
partnership, 7—1.
voluntary, 3—4.
Annulment of contract, 16—67, 70.
Appeal, 1—13.
Appearance, 1—11.
Arbitration, 16—51, 17—44.
Architect:
compensation, 12—2.
plans, ownership, 12—2.
standard contract forms, 17—33-45.
Assignment, equity, 5—7.
Award of contract, 7—26, 13—6, 15—13.

Baggage, 11—12.
Bailment, 4—5, 8—19.
Bids and bidders, *see* proposal.
Bill of lading, 10—2, 11—9.
Bond, 13—1-11.
cash in lieu of, 13—8.
contract, 13—9, 11-15.
corporation, 7—13.
information for bidders, 6—8, 14—2.
long contract form, 13—3-8.

Bond — *Continued.*
proposal, 13—12–15, 15—3, 11, 16—10.
railroad, 11—1.
short contract form, 16—1.
text as to, 16—17, 17—29, 38.
Borings, 14—12, 15, 19—2–5.
Boundaries, 6—17–22.
Breach of contract, procuring, 4—17.
Building laws, 7—25.
Burden of proof, 2—16, 4—7.
Business associations, 7—1.
Buyer, *see* sales.
By-laws of corporations, 7—6, 10.

Cancellation, equity, 5—11.
Carriers, common, 11—7–16.
acceptance of goods, 11—9.
account and statistics, 11—15.
baggage, 11—12.
classification, 11—13.
connecting lines, 11—8.
definition and law of, 11—7.
delivery, 11—10.
discrimination, 11—13.
Interstate Commerce Act, 11—14.
lien, 11—8.
negligence, 11—9, 12.
passengers, 11—11.
rates and State control, 11—13, 14.
responsibility for freight, 11—8–10.
Cash deposit in lieu of securities or bond, 13—13, 16—19, 18—8.
Certified check, 10—9, 13—9, 11—15, 14—2, 7, 15—1, 3, 9—12.
Changes in contracts, 16—56, 17—23, 39.
Charter, 7—5, 6, 8, 24.
Checking plans, 16—30.
Checks, 10—2, 8.
payment stopped, 13—14.
Chief engineer:
defined, 16—47.
decision final, 16—47.
acting chief, 16—53.
Circumstantial evidence, 2—3, 6.
Clayton Act, 7—17.
Collusion, 15—2, 6.
Common carriers, *see* carriers.
Common law, *see* law.
Compensation:
architects, 12—2.
experts, 12—11.
Competition:
for benefit of public, 13—7.
Condition precedent, 16—48.
Conditional sales, *see* sales.
Consideration:
implied, 3—8.
in contracts, 3—6, 16—11, 15.
mutual promises, 3—7.
negotiable instruments, 10—4, 18.
seal, 3—7.
Constitutionality of laws, 1—8.
Construction:
of statutes, 1—14.
see contracts, construction.
Contractor:
relations with engineer, 12—4.
relation to construction, 16, 17.
understanding of conditions, 16—19.
verify information, 14—15.
Contracts, construction:
abandonment, 17—29.
acceptance of work, 16—77.
accounts available to engineers, 17—19.
acknowledgment, 17—22.
adjustment of dispute, 16—47–54.
adjacent property, 16—42.
agreement, texts, 16—10.
annulment, 16—67, 70.
arbitration, 16—51, 17—44.
architects:
standard form, 17—33–45.
status and decisions, 17—36.
bond, 17—29, 38.
bond, text, 16—17.
cash in lieu of bond, 16—19.
changes, 16—56, 17—23, 39.
checking plans, 16—30.
chief engineer defined, 16—47.
acting chief, 16—53.
decision final, 16—47–54.
cleaning up, 16—45, 17—41.
company to take work, 16—67.
completed portions, 16—54.
conclusion, text, 16—79.
condition precedent, 16—48.

Contracts, construction — *Continued.*
consideration, 16—11, 15.
contractor's personal attention, 16—25–27.
understanding of conditions, 16—19.
correction of work, 17—37.
cost plus percentage contract, 17—22–32.
audit, 17—27.
costs, 17—24.
fee of contractor, 17—26.
costs extra work, 16—58.
crossing railroads or lands, 17—20.
decision of chief engineer, 16—47–54.
deducting moneys, 16—40.
deduction, equitable, 16—31.
defective work, 16—31.
definitions, 17—18, 34.
delay, 16—29, 54, 63, 17—7, 13, 41.
detail drawings, 17—35.
disputes, 16—47–54, 17—31.
emergencies, 17—37.
emergency contract U. S., 17—23–32.
engineer defined, 16—47.
engineer, powers, 16—47.
error, gross, 16—49.
errors and discrepancies, 16—29.
estimates, 16—73, 77.
expediting work, 16—66.
extension of time, 16—54, 63.
extra work, 16—58, 17—39.
faith, good, 16—49.
"furnish and do", 16—13, 17—21, 23.
general conditions, 16—14.
text, 16—17–80.
guaranteed work, 17—15.
hiring company employees, 16—45.
imperfect work, 16—66.
incompetent and disorderly, 16—44.
indemnity, 16—38.
injuries to persons, 17—38.
inspection, 16—31, 17—27, 37.
not acceptance, 16—31.
instructions and points, 16—28
Contracts, construction— *Continued.*
insurance:
fire, 16—37, 17—38.
liability, 17—4, 38.
intent of documents, 16—20, 17—35.
intoxicating liquors, 16—45.
labor, 17—30.
lands provided, 16—62.
laws and ordinances, 17—1.
legal representatives, 16—12, 79.
liability of commissioner and employees, 17—17.
liens, 16—40, 17—40.
liquidated damages, 16—15, 17—9–12.
maintenance and repairs, 17—14.
measurements, 17—19.
methods and appliances, 17—6.
moneys deducted, 16—40.
night work, 16—31.
order and discipline, 16—44.
order of completion, 16—54.
order of construction, 17—5.
ordinances and laws, 17—1.
ownership of drawings, 17—36.
parts of work taken, 16—67.
patents, 17—41.
payments, 16—73, 77, 17—26, 33, 39, 40.
failure to make, 16—73.
last, a release, 17—17.
penalty, 17—9.
permits, 16—22.
plans and specifications:
intent of attached, 16—20.
explanatory, 16—20.
points and instructions, 16—28.
prices, 16—14, 15.
progress, rates of, 17—7.
protection of work, 16—23, 17—37.
quantities, approximate, 17—8.
rejected materials, 16—36.
rentals, 17—24, 31.
repairs, 17—15.
rights:
in materials, 17—19.
of various interests, 18—24.
risk, 16—43, 17—7.
samples, 17—36.

Contracts, construction — *Continued.*
sanitary conveniences, 17—5.
separate contracts, 17—42.
signs prohibited, 17—20.
specifications and plans, intent, 16—20.
specifications, place of, 16—2.
stakes, preserving, 16—30.
stakes and batter-boards, 17—16.
standard contract form, architects', 17—33-45.
subject matter, 16—1.
subletting, 16—24, 17—30.
subcontracts and subcontractors, 16—24-26, 17—43.
successors, etc., text, 16—7-9, 12, 17—34.
superintendence, 16—26.
supervision, 17—36.
surety's consent, 16—57.
suspension of work, 16—64.
termination of contract, 17—28, 41, 42.
time of doing work, 16—15.
transfer or sublet, 16—24.
uniform contract form, 16—1-80.
text, 16—2-10.
wages of employees, 16—40.
written order, extra work, 16—58.
Contracts, general, 3—1-16.
agreement, 3—1.
breach, 3—14.
procuring, 4—17.
clearness, 3—10.
competition, 3—10.
consideration, 3—6-8.
corporations, 3—6.
definition, 3—1.
discharge, 3—13.
essentials, 3—1.
evidence, 3—10.
fraud, 3—3.
implied, 3—2, 8.
impossibility, 3—15.
lawful subject matter, 3—8.
licenses, 3—8.
married women, 3—5.
minors, 3—5.
misrepresentation, 3—4.
mistake, 3—3.
Contracts, general — *Continued.*
mutual promises, 3—7.
new agreement, 3—15.
offer and acceptance, 3—2.
parties, 3—5.
performance, 3—13.
proof, 3—2.
public policy, 3—9.
remedies for breach, 3—16.
restraint of trade, 3—9.
sales, 9—2.
seal, 3—7.
specific performance, 5—11.
subject matter, 3—8, 16—1.
Sunday laws, 3—8.
tender, 3—14.
valid consideration, 3—7.
voluntary agreement, 3—4.
Contribution, equity, 5—10.
Contributory negligence, 4—7, 8—13, 11, 11—11.
Copyright, infringement, 4—18.
Corporations, 7—1-29.
agreement, 7—8.
assessment, 7—15.
bonds, 7—13.
by-laws, 7—6, 10.
capital, 7—18.
capital stock, 7—6, 8, 14, 18.
certificate of incorporation, 7—6.
of organization, 7—7.
charter, 7—5, 6, 8, 24.
amendment, 7—13.
a contract, 7—12.
form, 7—10.
Clayton Act, 7—17.
directors, 7—7, 9, 10, 19, 21, 22.
dividends, 7—20.
evidence of existence, 7—6.
executive committee, 7—22.
Federal Trade Commission, 7—17.
first meeting, 7—6, 8, 10.
formation, 7—6, 8.
general discussion, 7—4.
how created, 7—5.
incorporate where, 7—12.
incorporation, 7—6, 8, 12, 14.
Interstate Commerce Act, 7—18.
kinds of, 7—5.
meetings, stockholders', 7—20.

Corporations — *Continued.*
municipal, *see* municipal.
objects, 7—10.
officers, 7—7, 9, 19.
organization, 7—6–10.
organized, 7—7.
party to contract, 3—6.
power of incorporators, 7—6.
powers, 7—11.
powers of State, 7—23.
preferred stock, 7—16.
promoters, 7—18.
secret profit, 7—19.
securities, 7—13.
Sherman Law, 7—17.
State control, 7—23.
stock, 10—5, 7—13–16, 18.
bonus, 7—16.
preferred, 7—16.
stockholders:
functions, 7—19.
liabilities, 7—15.
subscriptions, 7—14.
ultra vires, 7—21.
Cost plus percentage contract, 17—22–32.
Costs of construction, 17—24.
Courts, systems of, 1—6.
Crossings, 11—3, 7.

Damaged work, 17—18.
Decisions, reports of, 1—6.
Deeds, *see* real property.
Defects, *see* contracts, construction.
Delay:
construction, 14—9, 16—63, 17—13.
negotiable instruments, 10—26.
Delivery:
carriers, 11—10.
negotiable instruments, 10—13.
real property, 6—2, 8.
sales, 9—3, 10, 11.
Depositions, 2—11.
Discovery, equity, 5—14.
Discrimination, *see* carriers.
Dividends, *see* corporations.
Documents, 2—4, 13.

Easements, 3—12, 6—13.
Emergency contract, U. S., 17—23–32.
Eminent domain:
real property, 6—16–17.
railroads, 11—4.
Employers and employees, *see* master and servant.
Endorsement, *see* negotiable instruments, indorsement.
Engineer:
care as to negligence, 4—8.
error in survey, 12—4.
of construction defined, 16—47.
powers, 16—47.
public officer, 12—4.
qualifications for railroads, 11—4.
relation to evidence, 2—2, 9.
relations with contractor, 12—4.
relations with others, 12—1–13.
service expected, 12—4.
skill required, 12—3.
steps preliminary to construction, 13—1.
see contracts, chief engineer.
see expert.
Equity, 5—1–16.
discussion, 5—1.
established system, 5—1, 2.
evidence, 5—3.
fiduciary character of engineer, 5—9.
flexibility, 5—3.
injunction, 5—13.
jurisdiction, 5—4.
list of subjects, 5—5.
maxims, 5—5.
mortgage, *see* mortgage.
multiplicity of suits, 5—4.
of redemption, 5—7.
origin, 5—2.
pleading, 5—4.
procedure, 5—3.
receivers, 5—12.
relief, kind of, 5—2.
remedies, flexibility, 5—3.
rights and remedies, 5, 2, 4, 5.
titles, 5—5.
trusts, 5—5.
Estates, *see* real estate.
Estimates, 16—73, 77.
Estoppel:
agency, 3—3.
equity, 5—9.

Evidence, 2—1-18.
against interest, 2—11, 13.
best, 2—6.
boundaries, 6—17, 20, 21.
burden of proof, 2—16.
circumstantial, 2—3, 6.
classes of testimony, 2—2.
competency and weight, 2—1, 17.
definition, 2—1.
depositions, 2—11.
diagrams, 2—14.
direct and circumstantial, 2—3, 5.
documents, 2—4, 13.
duties of judge and jury, 2—1.
engineers' opportunities, 2—2.
entries, 2—12.
equity, 5—3, 14.
expert, 2—16, 12—6, 8.
hearsay, 2—9.
instruments of, 2—4.
irrelevant or immaterial, 2—3.
judicial notice, 2—3.
maps and photographs, 2—4, 14, 12—10.
models, 2—14.
necessity and trustworthiness, 2—10.
negligence, 4—7.
opinions, 2—15.
oral, 2—8.
persuasiveness, 2—18.
privileged communications, 2—15.
quality, 2—2.
real, 2—5.
refreshing memory, 2—12, 12—9.
reputation, 2—12.
res gestæ, 2—10.
secondary, 2—7.
standards of, 2—1.
view, 2—5.
witnesses, 2—4.
writings, 2—7.
Executive committee, *see* corporations.
Exoneration, equity, 5—10.
Expediting work, 16—66.
Experts, 2—16, 12—6-13.
advice to, 12—10.
compensation, 12—11.
court appointment, 12—12.
cross examination, 12—7, 9.
Experts — *Continued.*
ethics, 12—6.
investigation, 12—6.
opinions, 2—15, 12—7, 10.
qualifying, 12—7.
refreshing memory, 2—12, 12—9.
scientific facts, 12—8.
services, 12—11.
valuation, 12—13.
value of evidence, 12—8.
values, 12—9.
yes or no, 12—9.
Extension of time, 16—54, 63.
Extra work, 15—3, 8, 16—58, 17—39.

Facts:
for jury, 1—12.
in fraud, 4—3.
in torts, 4—2.
Federal Trade Commission, 7—17.
Fences, railroad, 11—5.
Fires, railroad, 11—12.
Fraud:
constructive, 5—9.
contract, 3—3.
equity, 5—9.
fiduciary character of engineer, 5—9.
Frauds, Statute of:
acceptance and receipt, 9—8.
contracts, 3—11.
contract unenforceable, 9—7.
lease, 6—11.
memorandum, 9—8.
part performance, 9—8.
sales, 9—7.

General conditions of contracts, 16—14, 17-80, 17—34.
Grade separation, 11—15.
Grantor, deeds, 6—6.

Health and comfort, 4—16.
Health and safety, 8—19.
Hearsay, *see* evidence.
Highways:
boundaries, 6—20.
crossings of railroads, 11—3, 7.
easement, 7—28.
landowner's right, 7—28.

Highways — *Continued.*
negligence as to, 4—5.
rights of public in, 4—10.
title of municipality, 7—28.

Imperfections in work, 16—66.
Indemnity, 16—38.
Independent contractor, 8—16.
Incorporation, 7—6, 8, 12, 14.
Indorsement, *see* negotiable instruments.
Information for bidders, 14—1-18.
bids in words and figures, 14—1, 5.
bids opened and read, 14—1, 4.
bids rejected, 14—3, 9.
blank forms required, 14—1, 5.
bond required, 14—2, 6.
certified check, 14—2, 7.
deposits returned, 14—2, 6.
examination by bidder, 14—3.
Hill View reservoir, 14—13.
irregular bids, 14—3, 10.
labor requirements, 14—11.
plans seen where, 14—1, 5.
prices, 14—1, 5.
quantities, 14—2, 8.
quantities approximate, 14—2, 8.
sample form, 14—1.
special requirements, 14—12.
state qualifications, 14—3, 10.
surety, 14—2, 6.
time of beginning and ending, 14—3, 9.
unbalanced bids, 14—3, 10.
Infringement of patents, etc., 4—18.
Injunction, 5—13.
Inspection:
sales, 9—14.
work, 16—31, 17—27, 37.
Insurance:
fire, 16—37, 17—38.
liability, 17—4, 38.
Intent:
plans and specifications, 16—20, 17—35.
writings, 1—15.
Interpleader, equity, 5—16.
Interpretation of statutes, 1—14.
Interstate Commerce Act, 7—18, 11—14.
Interurban railroads, 11—7.
Intoxicating liquors, 16—45.
Introduction, 1—1-16.
Inventions, 8—9, 12—3.

Judge:
duties, evidence, 2—1.
general, 1—12.
negligence, 4—8.
Judicial notice, 2—3.
Jurisdiction of courts:
equity, 5—4.
ousting, 16—48, 50.
Jury:
duties, evidence, 2—1.
general, 1—12.
experts, 12—8.
negligence, 4—8.
in equity, 5—3.

Labor laws, 14—11, 17—2, 30.
Lading, bill of, 10—2, 11—9.
Lands:
for construction, 13—5.
for railroads, 11—4.
provided for contractor, 16—62.
see also real property.
Law:
common, definition and powers, 1—2.
constitutional questions, 1—8.
construction, 1—10, 14.
merchant, 10—4, 7.
purpose, 1—1.
statute, definition, 1—2, 7.
examples, 1—7, 7—6, 8, 10—6.
use of decisions, 1—6.
value of stability, 1—4, 7.
Lawsuit, conduct of, 1—10.
Lease, 6—11-13.
Liability:
agent, 8—5.
commissioners, 17—17.
directors, 7—22.
master, 8—9-13.
partners, 7—3.
principal, 8—4.
stockholders, 7—15.
third parties, 8—5, 6.

Licenses:
contracts, 3—8, 12.
definition, 6—14.
vs. trespass, 4—9.
Lien, mechanic's, 6—17, 16—40, 17—40.
Liquidated damages, 9—12, 16—15, 17—9.
Location of railroads, 11—2.

Maintenance and repair, 17—14.
Master and servant, 3—7-19.
agent and servant, 3—1.
care in employing, 3—12.
care required of employer, 3—11.
co-employee, 3—10-13.
contributory negligence, 3—11, 13.
defects of plant, 3—12.
Employer's Liability Acts, 3—14.
fellow-servant, 3—10-13.
independent contractor, 3—16.
inventions, 3—9.
locality of employment, 3—8.
negligence of employee, 3—10-13.
plant required, 3—12.
regulations for safety, 3—13.
remedy for discharge, 3—9.
responsibility of master, 3—9-13.
rights of employee, 3—8.
risk, 3—11.
rule stated, 3—10.
vice principal, 3—13.
Workmen's Compensation Act, 3—15.
Measurements, 17—19.
Mechanic's lien, 6—17, 16—40, 17—40.
materials, 6—17.
Minor, 3—5, 8—3.
Misrepresentation, 3—4, 19—3.
Mistake:
contract, 3—3.
equity, 5—8.
Monthly estimate, 16—73.
Monuments, *see* **boundaries.**
Mortgage:
an estate, 5—7.
definition, 5—6, 6—14.
equity of redemption, 5—7, 6—15.
foreclosure, 5—7.
Mortgage — *Continued.*
legal title, 6—15.
release, 6—15.
Municipal corporations, 7—23-29.
award of contracts, 7—26.
bonds and warrants, 7—28.
building laws, 7—25.
business corporations, 7—23.
charter, 7—24.
civil service, 7—26.
counties, towns, school districts, 7—27.
departments, 7—25.
express grants, 7—27.
formalities, 7—26.
officers, 7—25, 29.
organized how, 7—23.
powers, 7—24.
State control, 7—25, 27.
taxation, 7—28.
title in highways, 7—28.
warrants, town meetings, 7—27.
Mutual promises, 3—7.

Negligence, 4—4-8.
bailment, 4—5.
burden of proof, 4—7.
common carriers, 11—9.
contributory, 4—7.
damages, measure of, 4—8.
definition, 4—4.
employees, 3—10, 12.
essentials, 4—7.
evidence, 4—7.
fellow-servant, 3—10-13.
highways, 4—5.
in nuisance, 4—17.
negotiable instruments, 10—32.
professional service, 4—6.
proximate cause, 4—6.
right of support, 4—12.
Negotiable instruments, 10—1-37.
acceptance, 10—2, 15, 33.
accommodation, 10—7, 18.
agent, 10—14.
alteration, 10—31.
ambiguous, 10—14.
bank notes, 10—5.
bearer, 10—12, 20, 21.
bill of lading, 10—2.

Negotiable instruments — *Continued.*
bill of exchange, 10—1, 7, 10.
bills in sets, 10—35.
blanks, filling, 10—13.
certainty of sum, 10—10.
certificates of deposit, 10—5.
certificates of stock, 10—5.
certified checks, 10—9.
checks, 10—2, 8.
collateral security, 10—11.
consideration, 10—4, 18.
computation of time, 10—7, 26.
coupon bonds, 10—5.
dates, 10—12, 13.
definitions, 10—6.
delay, 10—26.
delivery, 10—13.
demand, 10—10, 12.
discharge, 10—30.
dishonor, notice, 10—27.
drafts, 10—4.
foreign and inland bills, 10—4, 7.
forged checks, 10—9.
forgery, 10—15, 31.
form, 10—10.
holder:
for value, 10—18.
in due course, 10—22.
rights of, 10—22.
honor, 10—33.
imperfect or incomplete, 10—13.
indorsement, 10—3, 19-22.
innocent purchaser, 10—23.
law merchant, 10—4, 7.
letters of credit, 10—5.
liability of parties, 10—23.
Negotiable Instruments Law, 10—5-37.
negotiation, 10—2, 18.
notice, 10—27.
order, 10—12.
payment, 10—25, 30, 34.
patent right notes, 10—35.
presentment, 10—16, 25.
promissory notes, 10—3, 8.
promises of notes, 10—11.
protest, 10—29, 32.
omissions, 10—11.
recourse, 10—20.
speculative consideration, 10—35.
tender, 10—30.
time determination, 10—11.
transfer, 10—13.
traveler's checques, 10—5.
ultra vires, 7—21.
warranty, 10—24.
Night work, 17—18.
Note books, 2—12.
ownership, 12—3.
Notice:
acceptance of bid, 15—3-12.
equity, 5—10.
how served, 16—70.
negotiable instruments, 10—27.
Nuisance, 4—16, 17.

Offer and acceptance, 3—2, 15—1.
Officers, public, 12—4.
Opinion:
evidence, 2—15.
expert, 12—7, 10.
Order:
and discipline, 16—44.
of work, 16—54, 17—5.
Organization of corporations, 7—6-10.
Ownership:
inventions, 12—3.
note books, 12—2, 3.
plans, 12—2, 3, 17—36.

Partition of lands, equity, 5—16.
Partnership, 7—1-4.
accounts closed, 5—15.
agreement, 7—1.
definition, 7—1.
dissolution of, 7—3.
fiduciary character, 7—2.
firm name, 7—2.
good-will, 7—2.
liability, 7—3.
limited, 7—3.
principals and agents, 7—2.
private debts, 7—3.
proof of, 7—4.
property, 7—1.
Passengers, 11—11.
Patents, infringement, 4—18.

Payments:
monthly, 16—73.
failure to make, 16—73.
negotiable instruments, 10—25, 30, 34.
sales, 9—10.
Penalties, 5—12, 17—9.
Permits in construction, 16—22.
Plans:
copyright, 12—3.
ownership, 12—2, 3.
part of contract, 16—20.
Pleadings, 1—11.
equity, 5—4.
law, 1—11.
Powers:
corporation, 7—11.
engineer, 16—47.
Prescription, *see* real property.
Prices, 14—1, 5, 15—3, 7.
see also contracts, construction.
Principal:
agency, 3—3-6.
partnership, 7—2.
Professional service, 4—6, 12—3.
Promissory note, 10—3, 8, 10.
Proof, *see* evidence.
Proposal, 15—1-15.
acknowledgment, 15—4.
agreement, 15—3, 8.
agreement for certified check, 15—1, 3, 9-12.
award, 15—13.
bidders in arrears, 15—2, 7.
bond, 15—3, 9-12, 18—10.
collusion by bidders, 15—2, 6.
examination of conditions, 15—2, 7.
extra work, 15—3, 8.
lowest bidder, 15—14.
notice, 15—3, 9-12.
offer and acceptance, 15—1, 11.
opening bids, 15—13.
persons interested, 15—2, 6.
prices, 15—3, 7.
qualification of bidders, 15—3, 4.
quantities, 15—3, 9.
rejection of bids, 13—16, 14—3, 9, 15—14.
sealed box, 14—4.
surety, 15—3, 6, 9-11.
Proposal — *Continued.*
surety's consent, 15—5.
unbalanced bids, 14—3, 10.
words and figures, 14—1, 5, 15—3.
Protecting work, 16—23, 17—37.
Public policy, 3—9.

Qualifying by expert, 12—7.
Quality, sales, 9—4, 9.
Quantities, approximate, 14—8, 15—9, 17—8.

Railroads, 11—1-16.
accounts and statistics, 11—15.
bonds, 11—1.
common carriers, *see* carriers.
construction, 11—5.
contractor's work adjacent to, 16—42.
crossings, 11—3, 7.
eminent domain, 11—4.
fencing and cattle, 11—5.
financing, 11—1.
fires, 11—12.
grade separation, 11—15.
incorporation, 11—1.
interurban, 11—7.
location, 11—2.
private tracks, 11—4.
right of way, 11—4, 5.
route, 11—1, 3.
safety appliances, 11—15.
securing lands, 11—4.
use of streets, 11—6.
valuation, 11—15.
Workmen's Compensation Act, 11—15.
Railways, street, 11—6.
Rates, *see* carriers.
Ratification, *see* agent.
Real property, 6—1-22.
boundaries, 6—17-22.
deeds, 6—2-9.
acknowledgment, 6—8.
essentials, 6—7.
quitclaim, 6—4-7.
recording, 6—8.
seal, 6—7.
signed, 6—7.
warranty, 6—2-6.

Real property — *Continued.*
wife's signature, 6—8.
witnesses, 6—7.
definition, 6—1.
delivery, 6—2, 8.
descriptions, 6—21.
easements, 6—13.
eminent domain, 6—16.
estates, 6—1.
fee simple, 6—1.
highways, 6—20.
lease, *see* lease.
mechanic's lien, 6—17.
monuments, 6—18.
mortgage, *see* mortgage.
prescription, 6—14, 20.
statute of frauds, 3—9, 12.
tenants, 6—11, 13.
title:
abstract, 6—9.
land courts, 6—10.
search, 6—9.
waters as boundaries, 10—19.
Receipt, *see* sales.
Receivers, 5—12.
Refreshing memory, 2—12, 12—9.
Rentals, 17—24, 31.
Repair, *see* contracts, construction.
Repeal of statutes, 1—15.
Reports of decisions, 1—6.
Rescission, equity, 5—11.
Restraint of trade, 3—9.
Right of support, 4—11-13.
Right of way, 11—4, 5.
Rights:
contiguous contractor, 16—24.
equitable, 5—2, 5.
public, in highways, 4—10.
Riparian rights, 4—13.
Risk:
contractor's, *see* contracts, construction.
to employees, 8—11.

Sales, 9—1-17.
acceptance, 9—8, 14.
ascertained goods, 9—4.
cash sales, 9—5.
choses in action, 9—6.
conditional, 9—5, 11, 17.
Sales — *Continued.*
contracts, 9—2.
definition, 9—1.
delay, 9—14, 16.
delivery, 9—3, 10, 11.
duties of buyer, 9—14.
duties of seller, 9—8.
Frauds, Statute of, 9—7.
future goods, 9—5.
future payment and delivery, 9—10.
inspection, 9—14.
involuntary, 9—2.
lands, connected with, 9—6.
lien, seller's, 9—14.
notice by seller, 9—11.
perished goods, 9—6.
price, 9—7.
purpose of article, 9—13.
quality and character, 9—4, 9.
quantity, 9—4, 9.
receipt, 9—8.
risk, 9—16.
sample or description, 9—13.
specific article, 9—9.
specific characteristics, 9—9.
specific goods, 9—3.
stoppage in transit, 9—15.
suitable for purpose, 9—9.
termination of transit, 9—15.
title, 9—8, 11, 14, 16.
Uniform Sales Act, 9—1, 17.
vs. contract to sell, 9—1, 3.
vs. labor and materials, 9—2.
warranty, 9—12, 13.
weighing, measuring, testing, 9—4.
Sanitary regulations, 14—15, 17—5.
Seal, 3—7, 6—7.
Securities of corporation, 7—13.
Servant, *see* master and servant.
Sherman Law, 7—17.
Specific performance, 5—11.
Specifications, 19—1-7.
see also contracts, construction.
Stakes, 16—30, 17—6.
Statute law, *see* law.
Statutes:
construction or interpretation, 1—14.
Stock, *see* corporations.

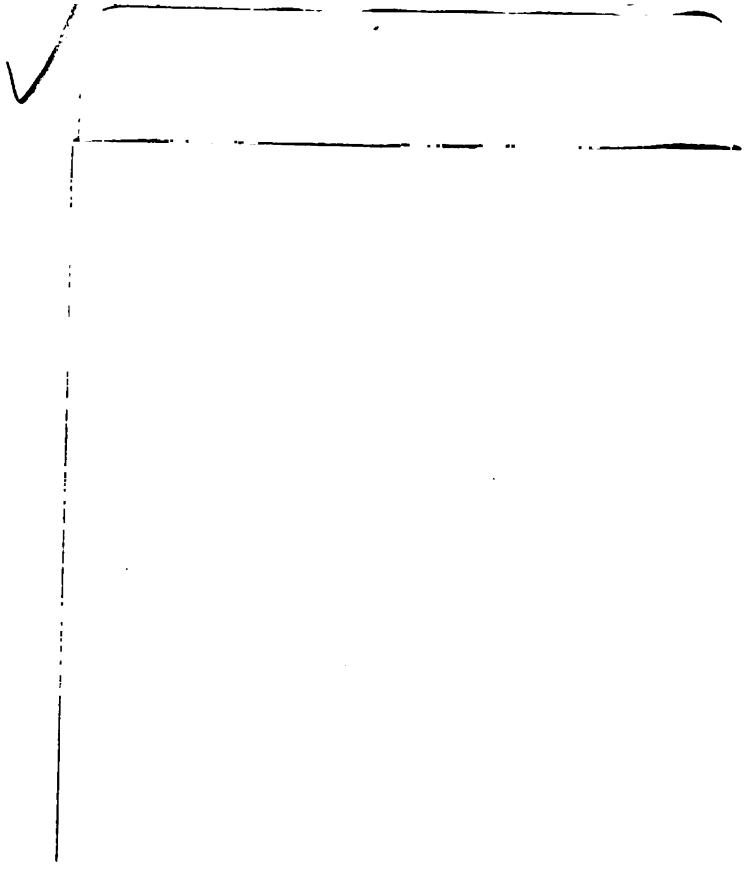
Stockholders, *see* corporations.
Street railways, *see* railways.
Subcontracts and subcontractors, *see* contracts, construction.
Subject matter, 3—8, 16—1.
Subletting, *see* contracts, construction.
Subrogation, equity, 5—10.
Sunday laws, 3—8.
Superintendence, *see* contracts, construction.
Surety, 14—2, 6, 15—3, 5, 6, 9–11, 16—57.
Suspension of work, *see* contracts, construction.

Tenants, 6—11, 13.
Tender, 3—14, 10—30.
Title:
  lands, 6—9.
  sales, 9—8, 11, 14, 16.
Torts, 4—1–18.
  breach of contract, procuring, 4—17.
  copyrights, patents, trademarks, 4—18.
  definition, 4—1.
  fraud or deceit, 4—2.
  list, 4—2.
  negligence, *see* negligence.
  nuisance, *see* nuisance.
  right of support, 4—11–13.
  trespass, *see* trespass.
  vs. crimes, 4—1.
  water rights, *see* water.
  ways of occurrence, 4—2.
Trespass, 4—9–11.
  against possession, 4—10.
  by surveyors, 4—9.
  definition, 4—9.
  duty of engineer, 4—11.
  entry under eminent domain, 4—9.
Trespass — *Continued.*
  on leased land, 6—12.
  vs. license, 4—9.
Trial at law, 1—10, 13.
Trusts and trustees:
  definitions, 5—5.
  directors of corporation, 7—22.
  duties of trustee, 5—6.
  express trusts, 5—6.
  implied trusts, 5—6.

Ultra vires, 7—21.
Unbalanced bids, *see* information for bidders.
Unconscionable stipulations, equity, 5—12.
Uniform contract form, 16—1–80.

Valuation, 12—13.
Verdict, 1—13.
View, 2—5.

Wages in contract, construction, 16—40.
Warrant, town meeting, 7—27, 13—3.
Warranty:
  lands, 6—2–6.
  negotiable instruments, 10—24.
  sales, 9—12, 13.
Water:
  courses, 4—13.
  classification waters, 4—13.
  economic use, 4—14.
  percolating, 4—15.
  priority of appropriation, 4—14.
  power and mill privileges, 4—14.
  reasonable use, 4—13.
  rights, 4—13–16.
  riparian rights, 4—13.
  surface, 4—15.
Witnesses, *see* evidence.
Workmen's Compensation Act, 11—15.



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